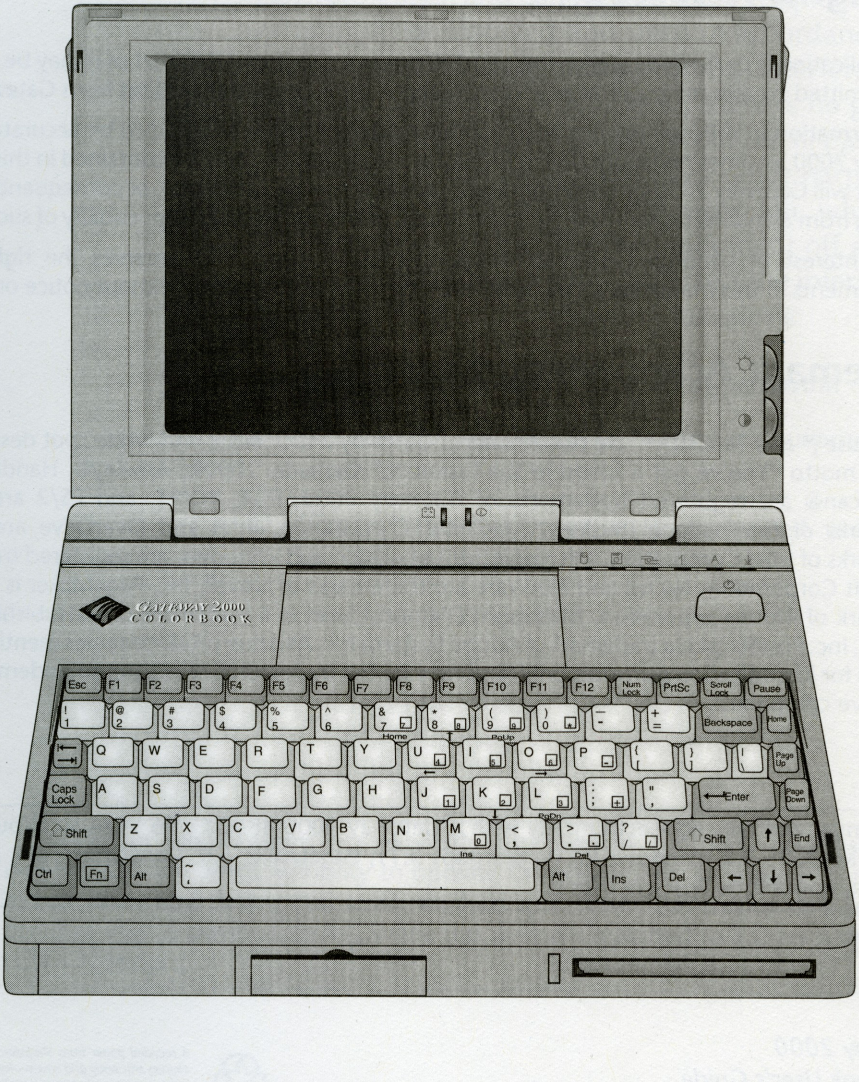
USER'S GUIDE

GATEWAY2000
COLORBOOK

GATEWAY 2000®

▲ COLORBOOK™



GATEWAY 2000
COLORBOOK
Esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 Num Lock PrtSc Scroll Lock Pause
Backspace Home
Q W E R T Y U I O P Page Up
Caps Lock A S D F G H J K L Enter Page Down
Shift Z X C V B N M Shift End
Ctrl Fn Alt Alt Ins Del
Home PgUp PgDn Ins Del

USER'S GUIDE

Part # SYSMAN005AAUS

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Gateway 2000®
610 Gateway Drive
N. Sioux City, SD 57049 USA

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Gateway 2000
ColorBook User's Guide
Part #SYSMAN005AAUS
4/94

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- ☐ Increase the separation between the equipment and receiver
- ☐ Consult the dealer or an experienced radio/TV technician for help.

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- ☐ Increase the separation between the equipment and receiver
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FCC Class A notification

If a PCMCIA Ethernet Adapter is installed in your Gateway 2000 portable computer, the FCC certification is changed from Class B to Class A. Class A certified systems must be operated in a commercial environment only.

VDE Regulation Vfg 243/1991

Radio interference suppression of radio-frequency equipment for industrial, scientific, medical (ISM) and similar purposes, and equipment used in information processing systems; General License.

For the operation of radio-frequency equipment or systems which remain within the Class B limits as defined in EN 55011 or EN 55022.

We hereby certify that the model 4DX2-66P computer is in compliance with BMPT-AmtsblVfg 243/1991 and is RFI suppressed

The marketing and sale of the equipment was reported to the German Postal Service.

The right to retest this equipment to verify compliance with the regulation was given to the German Postal Service.

GATEWAY 2000 Europe, Clonshaugh Industrial Estate
Dublin 17, Ireland

HIERMIT WIRD BESCHEINIGT, DASS DAS GERÄT MODEL 4DX2-66P IN ÜBERSTIMMUNG MIT DEN BESTIMMUNGEN DER BMPT-AtsblVfg 243/1991 FUNKENSTÖRT IST.

DEM BUNDESAMT FÜR ZULASSEN IN DER TELEKOMMUNIKATION (BZT) WURDE DAS INVERKEHRBRINGEN DIESES GERÄTES ANGEZEIGT UND DIE BERECHTIGUNG ZUR ÜBERPRÜFUNG DER SERIE AUF EINHALTUNG DER BESTIMMUNGEN EINGERÄUMT.

GATEWAY 2000 Europe, Clonshaugh Industrial Estate
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ColorBook 486SX-25 specifications

Case dimensions	11.7 x 8.5 x 1.77 inches (W x D x H)
CPU	Intel 80486SX
CPU Speed	25MHz
Core logic	PT86C368 Pico Power
BIOS	128K, includes system, power management, password, and video BIOS
Power supply	2300Ah NiMH battery or plug-in AC adapter; with true Suspend and Resume and four levels of power management
RAM capacity	4, 8, 12, or 20MB
Screen	VGA .3mm dot pitch, dual-scan STN color LCD; 256 colors; Cirrus Logic controller
External VGA port	Supports 640 x 480 simultaneous video and enhanced resolutions up to 1024 x 768
Mouse	Two-button integrated pointing device
Keyboard	85 keys, emulates full AT keyboard; 3mm stroke
I/O ports	One each: serial (D-sub 9-pin), parallel (D-sub 25-pin), VGA (D-sub 15-pin), external keyboard/mouse (Mini DIN 6-pin)
Hard disk drive	80MB
Floppy disk drive	3.5" drive built in
Weight	5.7 pounds with battery
PCMCIA slots	Two Type II slots, stacked to make a Type III slot
Certification	FCC Class B, UL, CSA
Software	MS-DOS 6.2, Windows for Workgroups 3.11

ColorBook 486SX-33 specifications

Case dimensions	11.7 x 8.5 x 1.77 inches (W x D x H)
CPU	Intel 80486SX
CPU Speed	33MHz
Core logic	PT86C268 Pico Power
BIOS	128K, includes system, power management, password, and video BIOS
Power supply	2300Ah NiMH battery or plug-in AC adapter; with true Suspend and Resume and four levels of power management
RAM capacity	4, 8, 12, or 20MB
Screen	VGA .3mm dot pitch, dual-scan STN color LCD; 256 colors; Cirrus Logic controller
External VGA port	Supports 640 x 480 simultaneous video and enhanced resolutions up to 1024 x 768
Mouse	Two-button integrated pointing device
Keyboard	85 keys, emulates full AT keyboard; 3mm stroke
I/O ports	One each: serial (D-sub 9-pin), parallel (D-sub 25-pin), VGA (D-sub 15-pin), external keyboard/mouse (Mini DIN 6-pin)
Hard disk drive	170MB
Floppy disk drive	3.5" drive built in
Weight	5.7 pounds with battery
PCMCIA slots	Two Type II slots, stacked to make a Type III slot
Certification	FCC Class B, UL, CSA
Software	MS-DOS 6.2, Windows for Workgroups 3.11

ColorBook 486DX-33 specifications

Case dimensions	11.7 x 8.5 x 1.77 inches (W x D x H)
CPU	Intel 80486DX
CPU Speed	33MHz
Core logic	PT86C268 Pico Power
BIOS	128K, includes system, power management, password, and video BIOS
Power supply	2300Ah NiMH battery or plug-in AC adapter; with true Suspend and Resume and four levels of power management
RAM capacity	4, 8, 12, or 20MB
Screen	VGA .3mm dot pitch, dual-scan STN color LCD; 256 colors; Cirrus Logic controller
External VGA port	Supports 640 x 480 simultaneous video and enhanced resolutions up to 1024 x 768
Mouse	Two-button integrated pointing device
Keyboard	85 keys, emulates full AT keyboard; 3mm stroke
I/O ports	One each: serial (D-sub 9-pin), parallel (D-sub 25-pin), VGA (D-sub 15-pin), external keyboard/mouse (Mini DIN 6-pin)
Hard disk drive	170MB
Floppy disk drive	3.5" drive built in
Weight	5.7 pounds with battery
PCMCIA slots	Two Type II slots, stacked to make a Type III slot
Certification	FCC Class B, UL, CSA
Software	MS-DOS 6.2, Windows for Workgroups 3.11

ColorBook 486DX2-40 specifications

Case dimensions	11.7 x 8.5 x 1.77 inches (W x D x H)
CPU	Intel 80486DX2
CPU Speed	40MHz
Core logic	PT86C368 Pico Power
BIOS	128K, includes system, power management, password, and video BIOS
Power supply	2300Ah NiMH battery or plug-in AC adapter; with true Suspend and Resume and four levels of power management
RAM capacity	4, 8, 12, or 20MB
Screen	VGA .3mm dot pitch, dual-scan STN color LCD; 256 colors; Cirrus Logic controller
External VGA port	Supports 640 x 480 simultaneous video and enhanced resolutions up to 1024 x 768
Mouse	Two-button integrated pointing device
Keyboard	85 keys, emulates full AT keyboard; 3mm stroke
I/O ports	One each: serial (D-sub 9-pin), parallel (D-sub 25-pin), VGA (D-sub 15-pin), external keyboard/mouse (Mini DIN 6-pin)
Hard disk drive	170MB
Floppy disk drive	3.5" drive built in
Weight	5.7 pounds with battery
PCMCIA slots	Two Type II slots, stacked to make a Type III slot
Certification	FCC Class B, UL, CSA
Software	MS-DOS 6.2, Windows for Workgroups 3.11

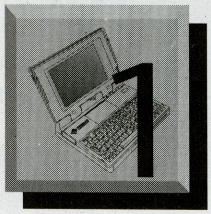
ColorBook 486DX2-50 specifications

Case dimensions	11.7 x 8.5 x 1.77 inches (W x D x H)
CPU	Intel 80486DX2
CPU Speed	50MHz
Core logic	PT86C368 Pico Power
BIOS	128K, includes system, power management, password, and video BIOS
Power supply	2300Ah NiMH battery or plug-in AC adapter; with true Suspend and Resume and four levels of power management
RAM capacity	8, 12, or 20MB
Screen	VGA .3mm dot pitch, dual-scan STN color LCD; 256 colors; Cirrus Logic controller
External VGA port	Supports 640 x 480 simultaneous video and enhanced resolutions up to 1024 x 768
Mouse	Two-button integrated pointing device
Keyboard	85 keys, emulates full AT keyboard; 3mm stroke
I/O ports	One each: serial (D-sub 9-pin), parallel (D-sub 25-pin), VGA (D-sub 15-pin), external keyboard/mouse (Mini DIN 6-pin)
Hard disk drive	250MB
Floppy disk drive	3.5" drive built in
Weight	5.7 pounds with battery
PCMCIA slots	Two Type II slots, stacked to make a Type III slot
Certification	FCC Class B, UL, CSA
Software	MS-DOS 6.2, Windows for Workgroups 3.11

ColorBook 486DX4-75 specifications

Case dimensions	11.7 x 8.5 x 1.77 inches (W x D x H)
CPU	Intel 80486DX3
CPU Speed	75MHz
Core logic	PT86C368 Pico Power
BIOS	128K, includes system, power management, password, and video BIOS
Power supply	2300Ah NiMH battery or plug-in AC adapter; with true Suspend and Resume and four levels of power management
RAM capacity	8, 12, or 20MB
Screen	VGA .3mm dot pitch, dual-scan STN color LCD; 256 colors; Cirrus Logic controller
External VGA port	Supports 640 x 480 simultaneous video and enhanced resolutions up to 1024 x 768
Mouse	Two-button integrated pointing device
Keyboard	85 keys, emulates full AT keyboard; 3mm stroke
I/O ports	One each: serial (D-sub 9-pin), parallel (D-sub 25-pin), VGA (D-sub 15-pin), external keyboard/mouse (Mini DIN 6-pin)
Hard disk drive	250MB
Floppy disk drive	3.5" drive built in
Weight	5.7 pounds with battery
PCMCIA slots	Two Type II slots, stacked to make a Type III slot
Certification	FCC Class B, UL, CSA
Software	MS-DOS 6.2, Windows for Workgroups 3.11

Getting Started



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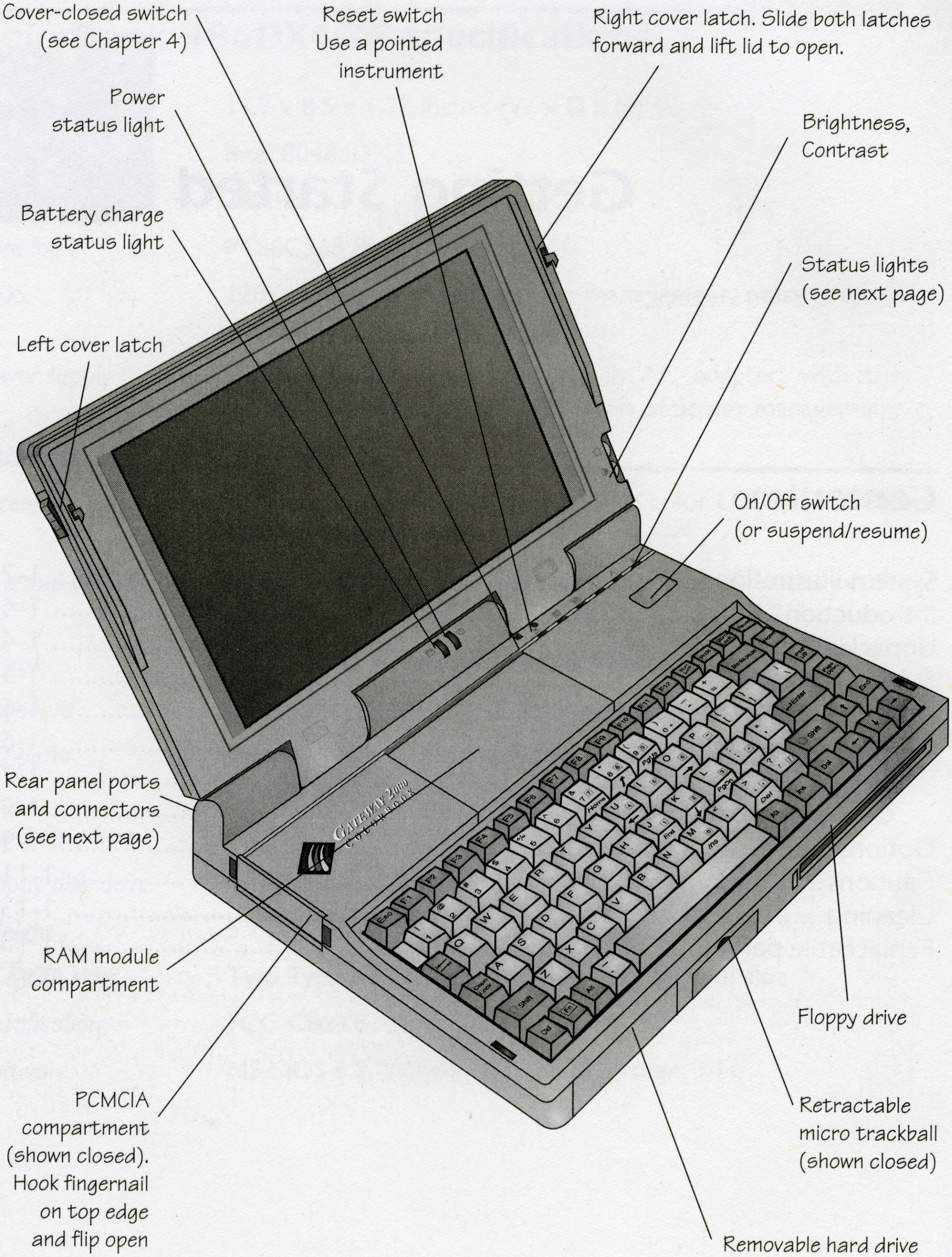
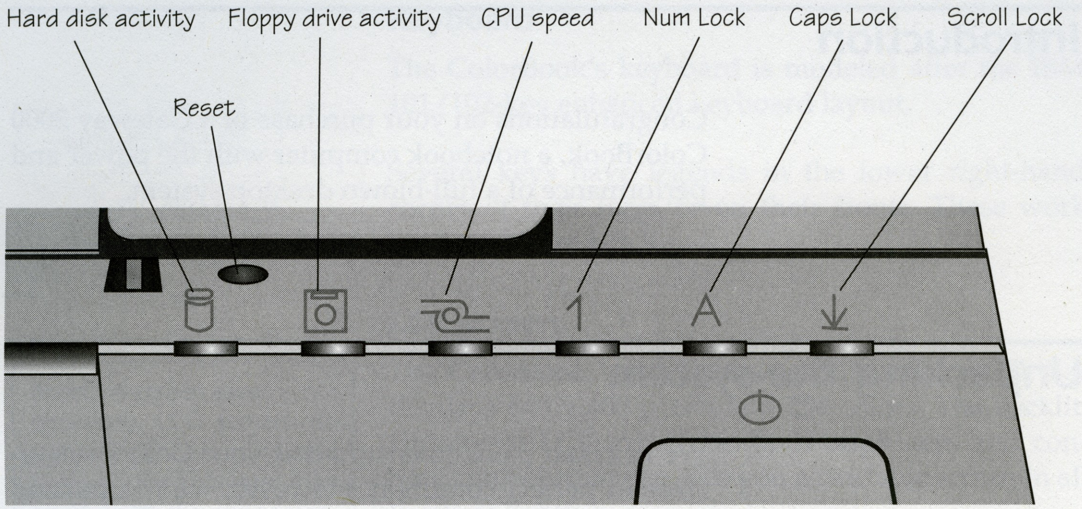
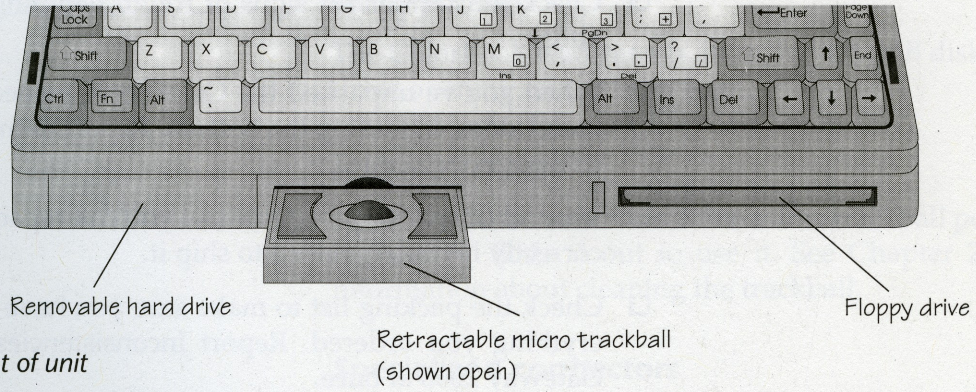
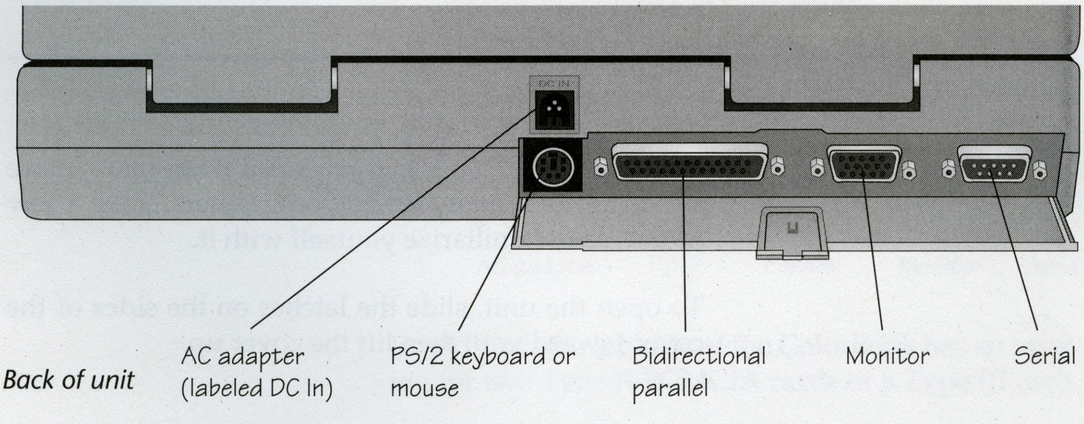

Cover-closed switch (see Chapter 4)
Reset switch Use a pointed instrument
Right cover latch. Slide both latches forward and lift lid to open.
Power status light
Brightness, Contrast
Battery charge status light
Status lights (see next page)
Left cover latch
On/Off switch (or suspend/resume)
Rear panel ports and connectors (see next page)
RAM module compartment
Floppy drive
PCMCIA compartment (shown closed). Hook fingernail on top edge and flip open
Retractable micro trackball (shown closed)
Removable hard drive
Gateway 2000 ColorBook


Hard disk activity
Floppy drive activity
CPU speed
Num Lock
Caps Lock
Scroll Lock
Reset

Status lights


Removable hard drive
Retractable micro trackball (shown open)
Floppy drive

Front of unit


AC adapter (labeled DC In)
PS/2 keyboard or mouse
Bidirectional parallel
Monitor
Serial

Back of unit

Introduction

Congratulations on your purchase of a Gateway 2000 ColorBook, a notebook computer with the power and performance of a full-blown desktop system.

Unpacking the system

We've taken pains to ensure that your ColorBook arrives in perfect condition. However, we recommend that you do the following for your protection:

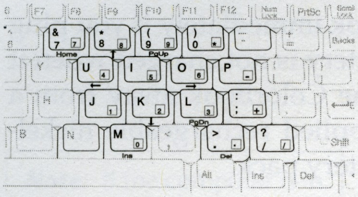
- ☐ Check the cartons for signs of rough handling or abuse.
- ☐ When you've unpacked the ColorBook, inspect it on all sides, including the bottom. Report damage to the carrier at once.
- ☐ Save all the packing materials so you can repack it correctly if you ever need to ship it.
- ☐ Check the packing list to make sure you have everything you ordered. Report inconsistencies to Gateway 2000 at once.

Standard features

The ColorBook is a very powerful computer—more powerful than many desktop computers. Take a few moments to familiarize yourself with it.

To open the unit, slide the latches on the sides of the cover toward you, then lift the cover up.

Keyboard



The ColorBook's keyboard is modeled after the IBM 101/102-key enhanced keyboard layout.

Several keys have legends in the lower right-hand corner of their faces or on their fronts. These work with the NumLock key.

Note: A screen saver is not necessary. LCD screens do not experience burn-in, and some screen-savers may conflict with the power management features and cause the computer to hang.

LCD screen

The ColorBook has a dual-scan STN color LCD that displays 640 x 480 pixels and 256 colors. The backlit, supertwist LCD panel has both brightness and contrast controls that can give you a readable screen in all levels of lighting.

Floppy drive

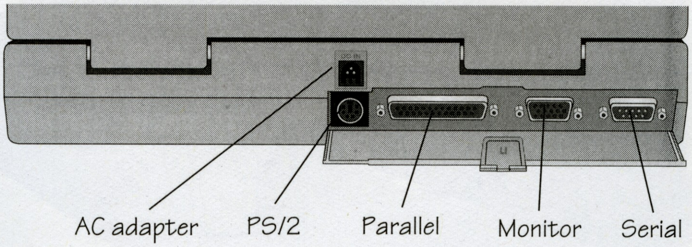
The ColorBook features a built in 3.5" 1.44MB diskette drive opening on the front edge.

Micro trackball

The ColorBook has a retractable micro trackball pointing device. Slide it out to use it. See Chapter 2 for information about cleaning the trackball.

Specialized connectors

The ColorBook has five in the back. The PS/2 connector can accept a mouse or keyboard.



In addition, the left side of the ColorBook has an opening for two Type II PCMCIA cards or a Type III card.

Power

Note: Do not operate the ColorBook until it has reached room temperature!

You can use your ColorBook immediately if you plug in the AC adapter. The battery is not charged when it first arrives. To operate the ColorBook away from a power source, use the supplied rechargeable nickel-metal-hydride (NiMH) battery pack.

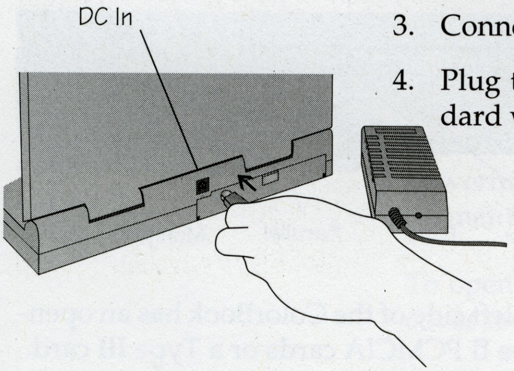
The AC adapter

The battery pack is not charged when the ColorBook is shipped, so start by using the AC adapter. You can operate the ColorBook on AC power whether or not the NiMH battery pack is installed. However, the battery does not charge if the system is powered up. It *can* be charged while in suspend mode, but not while you are using the ColorBook.

Never pull on the AC adapter's cord. Hold the plug securely while inserting or removing the AC adapter.

To connect the AC adapter:

1. Turn off power or wait for the ColorBook to enter standby or suspend mode.
2. Plug the adapter cord into the AC adapter socket, (labeled DC In) on the back of the ColorBook. It is keyed to only go in one way.
3. Connect the power cord to the AC adapter.
4. Plug the other end of the power cord into a standard wall outlet.



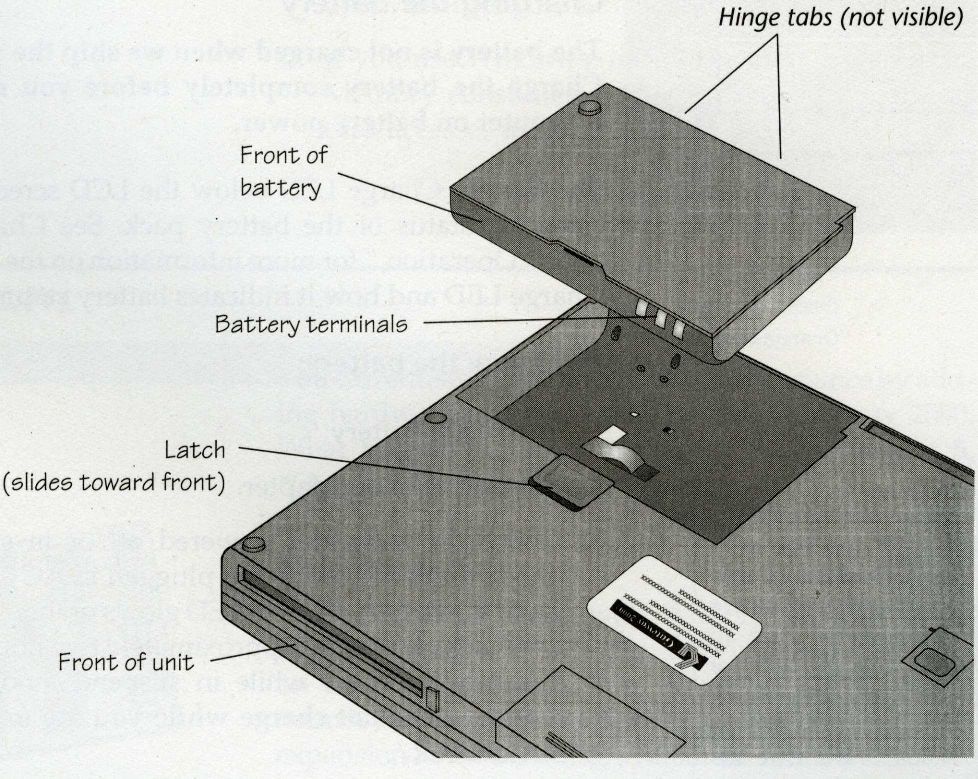
The battery

For safe shipment, the battery pack is stored in the battery compartment with **insulation paper between the battery pack and the computer**. You must remove the battery pack to remove the insulation paper.

> ***Note:*** If the computer is in suspend mode, never remove the battery unless the AC adapter is plugged in.

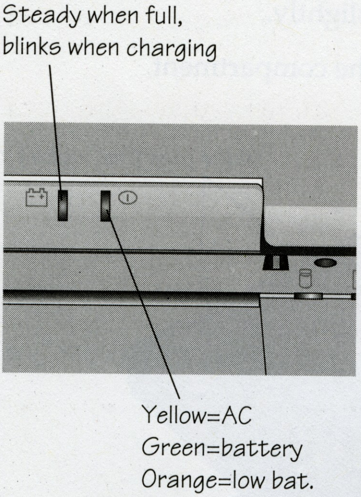
To remove the battery from the computer:

1. Turn off the computer, close the lid, disconnect the AC adapter, and lay the computer upside down.
2. Slide the battery pack away from the battery. The battery pack pops out slightly.
3. Lift the battery out of the compartment.


Hinge tabs (not visible)
Front of battery
Battery terminals
Latch (slides toward front)
Front of unit

To install the battery:

1. Turn off the computer, close the lid, disconnect the AC adapter, and lay the computer upside down.
2. Hold the front part of the battery pack (with the terminals). Slide the back side of the battery into the compartment.
3. Fit the two hinge tabs on the back of the battery pack into the indentations in the back wall of the compartment.
4. Press the front of the battery pack the rest of the way into the compartment so the battery is flush with the bottom of the computer case. This engages the battery pack latch.



Charging the battery

The battery is not charged when we ship the system. Charge the battery completely before you run the computer on battery power.

The Battery Charge LED below the LCD screen indicates the status of the battery pack. See Chapter 2, "Basic Operation," for more information on the Battery Charge LED and how it indicates battery status.

To charge the battery:

1. Install the battery.
2. Connect the AC adapter.
3. Leave the computer powered off or in suspend mode (but attached to the plugged in AC adapter) until the Battery Charge LED glows orange. Charging the battery takes approximately two hours with the power off, or while in suspend mode. **The battery does not charge while you are using the ColorBook.**

Note: Use only the AC adapter supplied with the ColorBook. Other adapters can cause damage. Be sure to plug the AC adapter into a grounded outlet or use a grounded plug adapter. **Do not attempt to bypass the ground connector.**

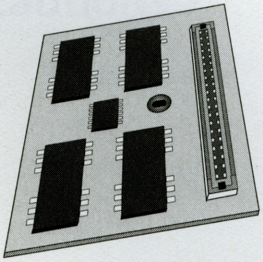
Conserving battery power

A fully charged battery provides approximately two hours of use. Here are some tips for conserving battery power:

- ☐ Turn the Brightness control all the way clockwise.
- ☐ Use the Power Control features (Chapter 3) to shorten the time needed to activate the "sleep" mode for system components.
- ☐ Use the suspend/resume mode (see Chapter 3).
- ☐ PCMCIA cards use power even when they are not in use. Remove the card when you're not using it.
- ☐ Run lean in Windows. The more items you have open, the more often the drive is accessed.
- ☐ If you use Windows, install the memory you can. Memory consumes a little power, but it reduces disk accesses more.

Options

You can enhance the ColorBook's performance by adding hardware options, available from Gateway 2000. What follows are brief descriptions. See Chapter 5, "Optional Devices," for more details.



4MB RAM module

RAM modules

Your ColorBook comes with 4MB of system memory, or RAM (random access memory) installed internally on the system board. You can expand the system memory to as much as 20MB by adding one or two expansion RAM modules, available in 4MB and 16MB.

External keyboard

The ColorBook supports the use of an external PS/2 keyboard. While an external PS/2 keyboard is connected, you still can use the built-in keyboard.

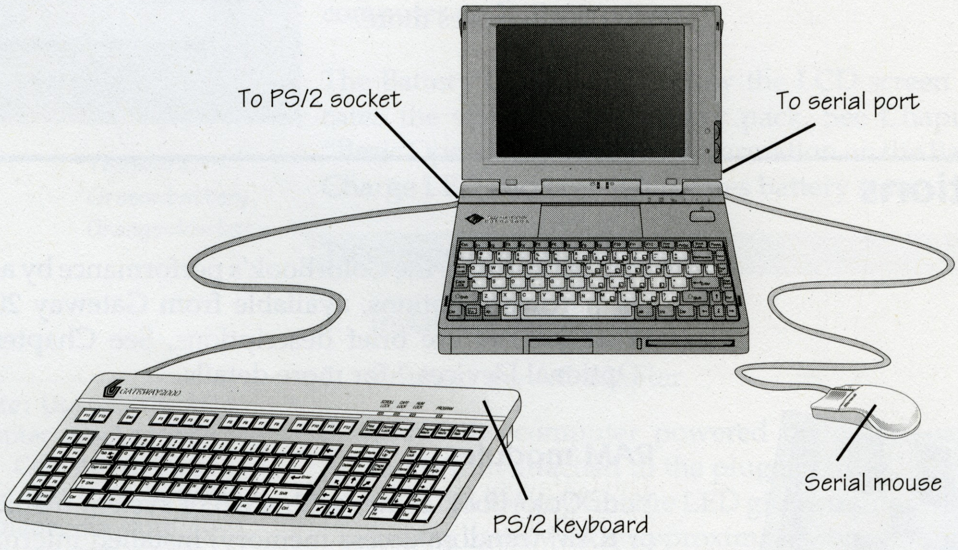
PS/2 mouse

Note: To use a PS/2 mouse, you must disable COM B (see Chp 4). If you change a COM setting and you use a PCMCIA device, run CSALLOC /G (see Chp 6) and reboot.

You can connect a PS/2 mouse instead of an external keyboard. You cannot use the micro trackball while an external PS/2 mouse is connected.

Serial mouse

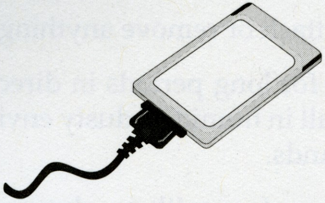
If you want to use both an external keyboard and a mouse, you can connect a serial mouse to the serial port.



External monitor

In addition to the LCD screen built into the ColorBook, you can attach a VGA or multifrequency external monitor to your system.

PCMCIA cards



Typical PCMCIA card

Note: If you use a PCMCIA card with a cable, attach the cable before you insert the card.

PCMCIA (Personal Computer Memory Card International Association) is a standard for memory, mass storage, and input/output cards, tailored for small size, ruggedness, and flexible operation.

PCMCIA cards are classified by thickness. The ColorBook's two Type II sockets also can be used as one Type III PCMCIA socket.

Gateway 2000 currently offers PCMCIA fax/modem cards, a SCSI adapter, and network cards.

Serial devices

The ColorBook has an RS-232C connector for a serial device such as an external modem or a serial mouse. This port is normally configured as COM 1, but can be set to COM 1–4 using the Setup program. See Chapter 4, "Setup Program" and Chapter 5, "Optional Devices" for details.

Cautions

The Gateway 2000 ColorBook computer is constructed of the highest quality materials. Because of its lightness and extreme portability, however, you're likely to be moving it around much more than you would a larger system. For that reason, to safeguard your data and to prevent damage to the computer, please take the following precautions:

☐ Never drop it or stack heavy objects on it.

☐ Don't move the computer more than necessary while it is on—especially when a drive is running.

☐ Make sure the power source is compatible with the AC adapter: 100–240 volts AC. This is especially important in foreign countries.

☐ Power OFF before you attach or remove anything.

☐ Don't use the computer for long periods in direct sunlight. Don't use it at all in humid or dusty environments or with wet hands.

☐ Never wipe the display surface with an abrasive material, including rough cloth.

☐ Don't store the computer near vibration or magnetic fields, or near solvents or corrosive gasses. Store it between -4° and 140°F (-20° and 60°C).

☐ Use the AC adapter only with the ColorBook.

☐ Don't attempt to open the AC adapter. It is permanently sealed and cannot be repaired.

☐ Never pull on the AC adapter's cord. Hold the *plug.*

☐ Don't expose the AC adapter to extreme changes in temperature or humidity.

☐ Keep the AC adapter free of dust and moisture, and keep it away from corrosive chemicals such as cleaning solvents.

☐ Keep the AC adapter away from heat sources and never leave it in direct sunlight.

☐ Don't drop the AC adapter or stack anything on it.

☐ Unplug the AC cord if you smell something burning or if the surface of the AC adapter becomes extremely hot.

Cleaning

To clean the LCD screen, wipe it carefully with a soft cloth. Screen wipes specially designed for cleaning computer screens are available through your local electronic parts supplier.

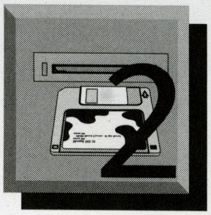
To clean the floppy disk drive, use a commercially available 3.5-inch wet-type cleaner diskette.

Replaceable parts

Eventually the battery pack will weaken and not hold a charge. Contact Gateway 2000 to purchase a replacement.

Inside the ColorBook is a lithium battery that runs the clock/calendar and keeps the CMOS settings. It should last a long time. If you begin to see a CMOS battery error message when you boot up, contact Gateway 2000 or a local computer dealer to purchase a replacement. To prevent the possibility of explosion, use only an identical battery for replacement.

Basic Operation



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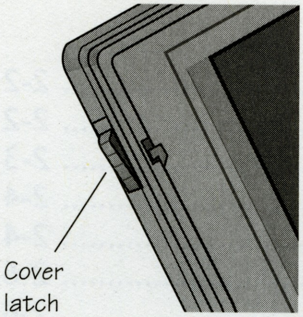
Introduction

Once you've unpacked the ColorBook and charged the battery (or connected the AC adapter), it's time to get up and running. This chapter covers how to operate the ColorBook and describes its parts.

Starting the ColorBook

If you have not already done so, set up the ColorBook for either battery operation or AC operation. Also, if you have not looked over the "Cautions" section in the previous chapter, please do so now.

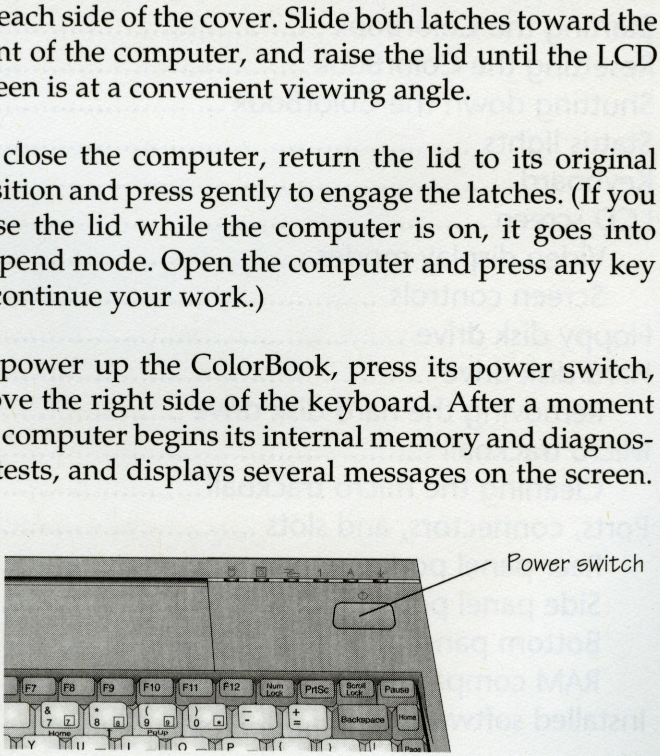


To open the computer, set it on its base. There is a latch on each side of the cover. Slide both latches toward the front of the computer, and raise the lid until the LCD screen is at a convenient viewing angle.

To close the computer, return the lid to its original position and press gently to engage the latches. (If you close the lid while the computer is on, it goes into suspend mode. Open the computer and press any key to continue your work.)

To power up the ColorBook, press its power switch, above the right side of the keyboard. After a moment the computer begins its internal memory and diagnostic tests, and displays several messages on the screen.

> **Note:** The switch normally operates as an On/Off switch. To have it operate as a suspend/resume switch, enter the Power Management program and configure it in the Controls menu. See Chapter 3 for details.



Finally, the DOS prompt or the Windows desktop appears.

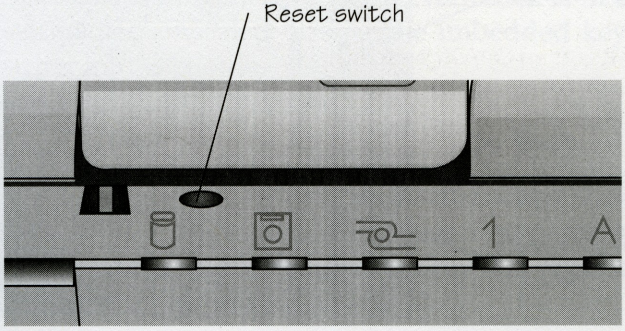
If necessary, adjust the brightness and contrast with the dials on the right side of the screen. Brightness does not change under battery power.

Resetting the ColorBook

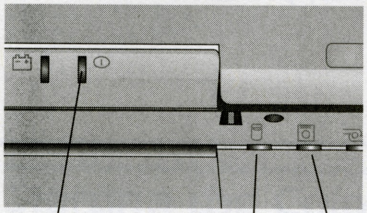
Rebooting and resetting a computer erases all the data in RAM, even if the computer is in suspend mode. This can result in lost data if you haven't saved your work.

To reboot the ColorBook, hold down the Ctrl and Alt keys, then press the Del key and release all three keys simultaneously. The screen goes blank, the computer performs an internal check, and then reloads MS-DOS.

If the system does not respond to this, press the Reset switch. The Reset switch is in the **round** hole above the status lights. It is intentionally difficult to access, so you do not reset the computer accidentally. Press the Reset button with a small, pointed object such as a toothpick or a straightened paper clip. The computer responds as if the power has been turned off; the screen goes blank, the computer performs an internal check, and then reloads MS-DOS from the hard disk.



Shutting down the ColorBook

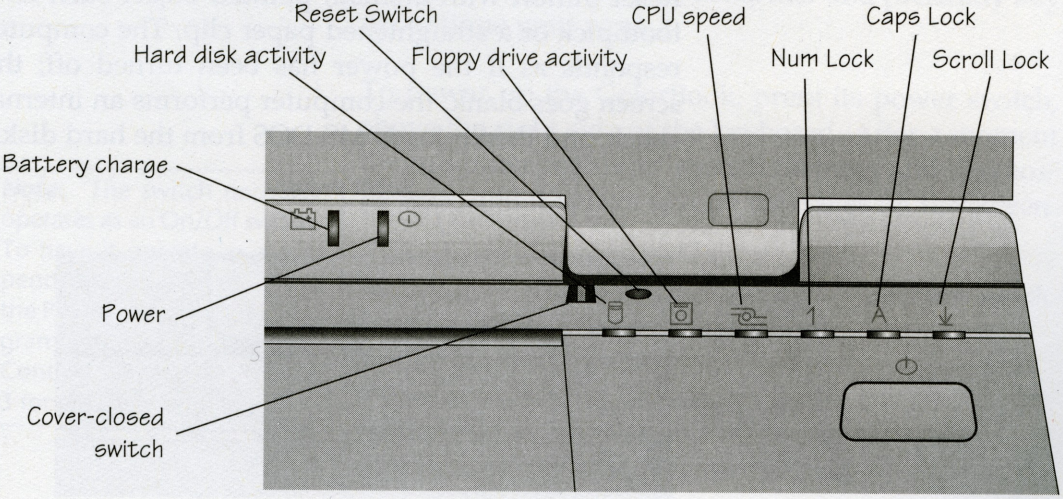

Lit when power is on
Hard, floppy drive activity lights

Before you shut off the computer, save your data, exit the program you are using, and remove any diskette in the floppy drive. Turn off any peripherals, such as a printer or external monitor. Then switch off the computer by pressing the power switch. Wait at least 15 seconds before you turn the computer on again.

Do not turn the power off while the hard disk or floppy drive activity light is lit.

Status lights

The ColorBook has two sets of status LEDs. One set, above the keyboard to the right, pertains to system functions. The other set lies on the hinge of the ColorBook, and is visible whether the cover is open or closed. These LEDs relate to power status. The meaning of each symbol and corresponding LED is as follows:


Reset Switch
CPU speed
Caps Lock
Hard disk activity
Floppy drive activity
Num Lock
Scroll Lock
Battery charge
Power
Cover-closed switch
1
A

Hard disk activity

When this LED is lit, the internal hard disk drive is being accessed (either read from or written to). Do not turn off the power or jostle the computer while this LED is on!

Floppy drive activity

When this LED is lit, the built-in 3.5-inch floppy drive is being accessed (either read from or written to). Do not turn off the power or jostle the computer while this LED is on. Never remove a floppy from the drive while this LED is on.

CPU speed

Note: Fn+T toggles the CPU speed between fast and slow.

The CPU LED changes color according to the speed at which ColorBook is running. When the system is at normal speed, the LED is green. If you choose the slower CPU speed in Setup, use the power save function, or use the function key combination Fn+T, the LED color is orange. The slower CPU speed extends battery life.

Reset button

Note: The cover-closed switch (in the square hole) operates when you close the cover. Set its function in the power management program. See Chp 3.

The reset button is in the round hole. If you need a hardware reset, press the switch with a toothpick or similar instrument.

NumLock

The NumLock LED is lit when NumLock is in effect. See the section titled "Using the imbedded keypad" earlier in this chapter.

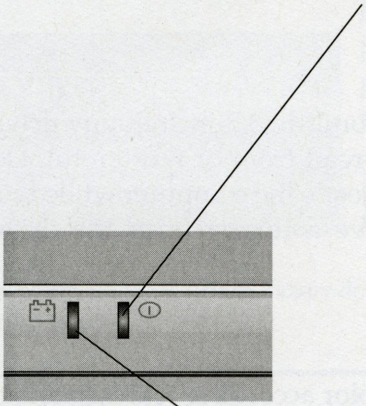
Caps Lock

The CapsLock LED glows green when Caps Lock is in effect. Alphabetic characters appear in uppercase. Numerals, punctuation, and function keys are not affected.

Scroll Lock

When Scroll Lock is in effect (the LED is lit), the cursor keys function differently in some programs.

Power



The Power LED indicates the current system power status. It glows:

Green when the ColorBook is operating on battery power.

Orange when battery power is running low.

Yellow when the ColorBook is operating on AC power. AC automatically replaces battery power when you plug in the AC adapter.

If the system is in suspend mode, the Power LED blinks the above colors.

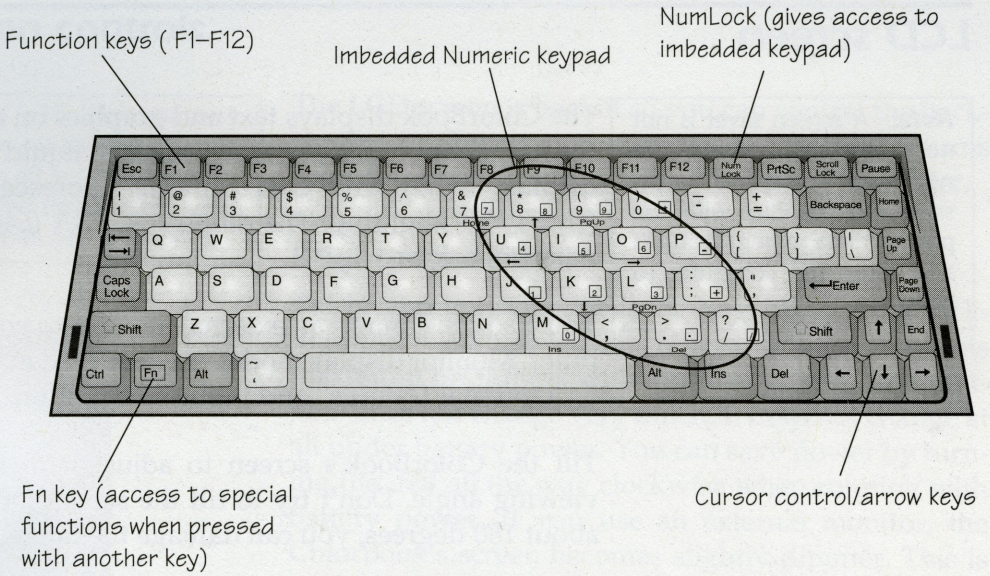
Battery charge

The battery charge LED indicates the battery charge status. It is not lit unless the AC adapter is plugged in and the computer is either powered down or in suspend mode. The light blinks if the battery is charging, and glows steadily if the battery is fully charged.

Keyboard

Your computer's keyboard provides all the functions of an AT 101-key enhanced keyboard, plus a few more that are unique to the ColorBook.

MS-DOS and most applications use many keys for special purposes. Refer to your program documentation and the *MS-DOS User's Guide and Reference* provided with your ColorBook.


Function keys (F1–F12)
Imbedded Numeric keypad
NumLock (gives access to imbedded keypad)
Fn key (access to special functions when pressed with another key)
Cursor control/arrow keys
Esc
F1
F2
F3
F4
F5
F6
F7
F8
F9
F10
F11
F12
Num Lock
PrtSc
Scroll Lock
Pause
Backspace
Home
Page Up
Caps Lock
Enter
Page Down
Shift
End
Ctrl
Fn
Alt
Ins
Del
PgUp
PgDn

Using the imbedded keypad

Normally the ColorBook's imbedded keypad keys work as usual typewriter keys. However, they can be used two other ways:

Note: If the NumLock key is on and you hold down the Fn key, the keys return to normal.

- ❏ If you press the NumLock key (the NumLock LED lights up), you activate the digits and symbols printed in the lower right-hand corner of the keys.
- ❏ If you hold down the Fn key, they work as cursor control keys. The cursor controls are printed on the front of the keys.

LCD screen

Note: A screen saver is not necessary. LCD screens do not burn in, and a screen saver may conflict with the power management features and cause the computer to hang.

The ColorBook displays text and graphics on a super-twist nematic (STN), passive-matrix liquid crystal display (LCD) with cold cathode fluorescent tube (CCFT) backlighting. The display is VGA (640 x 480) with 256 colors.

You also can connect an external monitor to your computer. Monitor display modes are described in Chapter 5, "Optional Devices" and in the next section.

Tilt the ColorBook's screen to adjust it to the best viewing angle. Don't try to tilt the screen more than about 180 degrees; you can damage the hinge.

You can set the Cover-Closed Switch to turn off the LCD only, rather than enter suspend mode. See Chapter 3 for details.

Video display modes

Pressing Fn+F1 lets you toggle among the ColorBook's three display modes: LCD (you use the built-in LCD screen only), CRT (external monitor only), and BOTH. If you prefer, you can choose a mode directly by double-clicking on the Panel, CRT, or SimulSCAN icons in the VGA Utilities group in Windows.

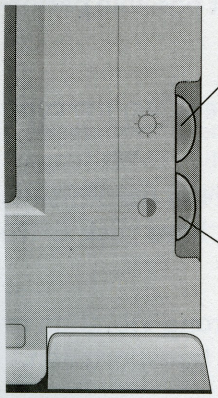
You also can access the display modes through a menu selection in the Setup program (see Chapter 4, "Setup Program" for details).

You can set the external monitor resolution as high as 1024 x 768 with the SetRES video utility in Windows, but if the monitor is set to a resolution higher than 640 x 480, the BOTH and LCD settings do not work.

Screen controls

Note: To save battery power, set the backlight to switch off automatically if a specified time passes without input. See Chapter 3.

The LCD screen is backlit so you can control the background brightness and contrast. The backlight turns on automatically when you power up the computer.



Brightness control

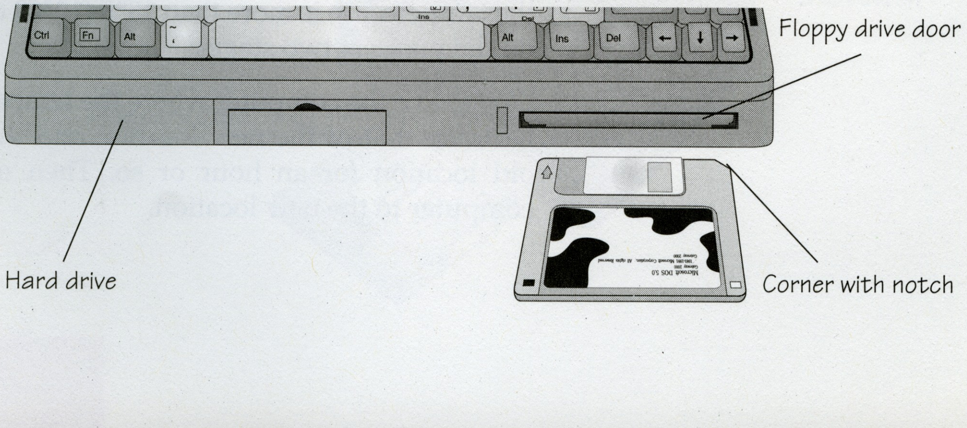
The brightness dial adjusts the brightness of the backlit screen. We use a high efficiency light that gets maximum brightness with minimal power, so brightness does not change very much. It does not change at all under battery power. You can save power by turning the dial all the way clockwise when running with battery power. If you use an external monitor, the ColorBook's screen becomes slightly dimmer. This is normal.

Contrast control

The contrast dial adjusts the difference between the image and the background. Contrast does not affect power consumption.

Floppy disk drive

The ColorBook's built-in floppy disk drive can read from and write to 3.5-inch high-density (1.44MB) diskettes. The floppy drive also accepts 720K floppies.



Hard disk drive

The hard disk drive in your computer is especially designed to withstand the rigors of travel. The hard disk heads automatically park themselves when the computer is turned off. It is still a precision device, however, and careful treatment prolongs its life.

Follow these guidelines to get the best possible performance from your hard drive:

☐ Never remove the hard disk drive when the computer is powered on.

☐ Never move the computer when the hard disk is being accessed (indicated by the hard disk drive LED status indicator).

☐ Never subject the computer to strong vibration or sudden shocks, especially during transportation.

☐ You can move your computer with the power on; it is a good idea, however, to put your computer in suspend mode, or simply close the cover if the Power Management program's Cover Close Switch is set to Suspend.

☐ Back up your hard disk regularly. You may wish to follow the backup procedure outlined in your *MS-DOS User's Guide and Reference*. If your hard disk fails, service technicians might not be able to recover the contents of your hard disk.

☐ When moving your computer to a location where the temperature is more than 18°F (10°C) different, do the move in two stages:

First, leave the computer where the temperature is between that of the new location and that of the old location for an hour or so. Then move the computer to the new location.

This ensures that the hard disk mechanisms have time to adjust to the new environment and prevents moisture from condensing on vital parts.

Removing the hard disk drive

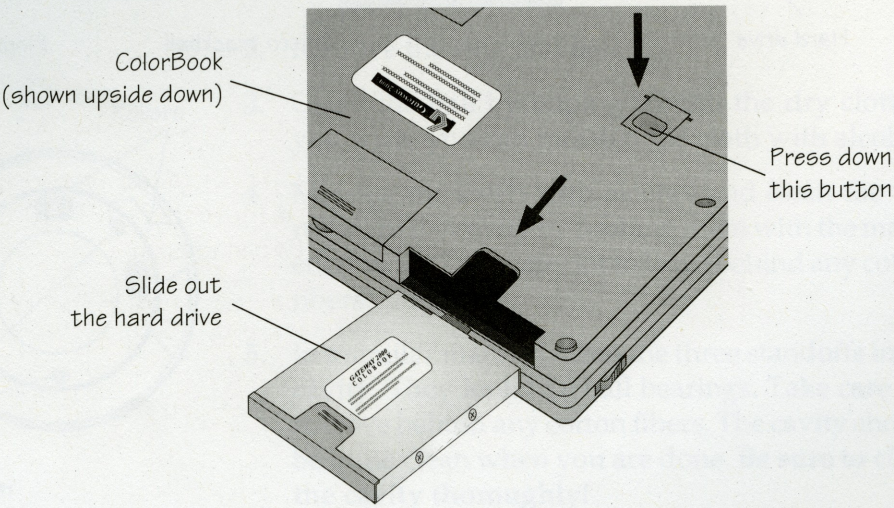
You can replace the hard disk drive in your ColorBook about as easily as you change floppy disks.

Note: Never remove the hard drive while the ColorBook's power is on.

To remove the hard drive:

1. Make sure the ColorBook is powered off (NOT in suspend mode).
2. Close the cover until it clicks into place.
3. Underneath the ColorBook is a hard drive release button (do not confuse it with the rechargeable battery pack release button). Hold this button in.
4. Put your fingers on the bottom of the hard drive and slide the drive out. It may work best to use your thumb as leverage against the closed lid of the ColorBook.

To replace the hard drive, fit it into its slot and push in until it clicks into place.


ColorBook
(shown upside down)
Press down
this button
Slide out
the hard drive
GATEWAY 2000
COLORBOOK

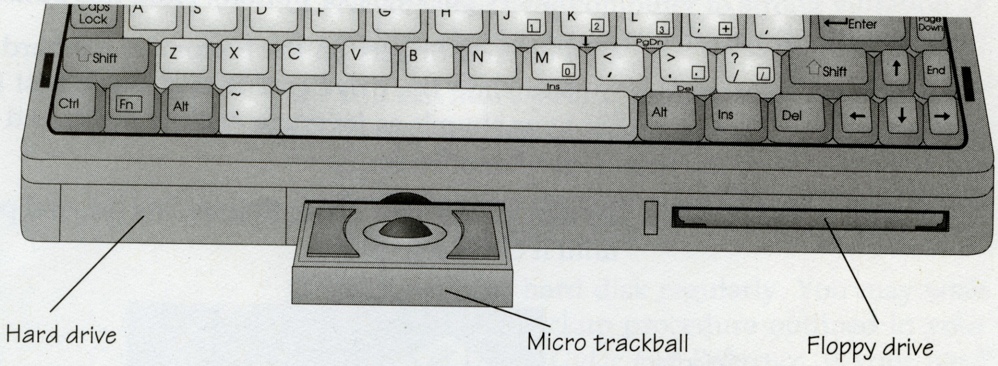
Micro trackball

Note: To use an external PS/2 mouse (see Chp 5), you must disable the trackball, which is on COM B (see Chp 4). Disabling COM B affects your PCMCIA slots. If you use a PCMCIA device, run CSALLOC /G (see Chp 6), then reboot.

Your ColorBook has a built-in retractable micro trackball just underneath the keyboard on the front edge. Use the trackball in programs that need a mouse.

The ColorBook is shipped with the micro trackball in its storage position inside the computer. To function, the micro trackball must be pulled out. Put your finger on the bottom of the micro trackball unit and slide it out. It may work best to use your thumb for leverage against the front of the computer.

Rotating the trackball in any direction moves the pointer accordingly. The left and right buttons correspond to the left and right buttons on a standard mouse.



Cleaning the micro trackball

If the pointer moves jerkily or refuses to move when you operate your trackball, it is almost always because foreign matter has accumulated on the mechanism underneath the trackball. The mechanism, although somewhat fragile, is easy to clean.

To clean the trackball:

Have on hand:

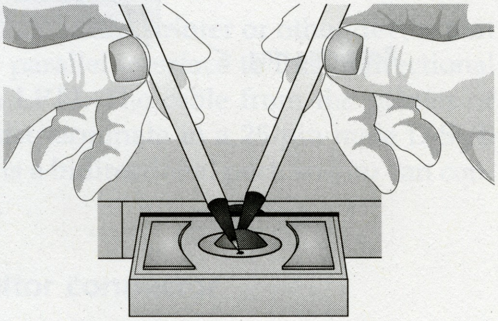
A dry, lint-free cloth

One or more cotton swabs

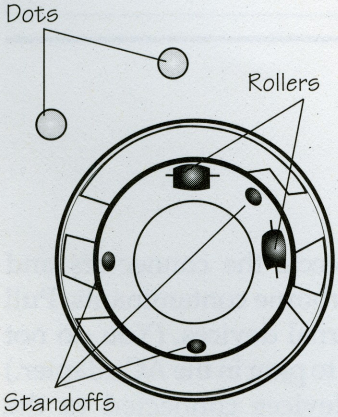
Isopropyl alcohol

A paper clip, bent into a U-shape, or two mechanical pencils.

1. Remove the retaining ring. Place the tips of the two pencils or each end of the paper clip into both dimples in the ring and carefully **rotate the ring counterclockwise** until it comes loose. **Do not pry** the retaining ring! Prying breaks the ring and voids your warranty! See also the illustration on the next page.

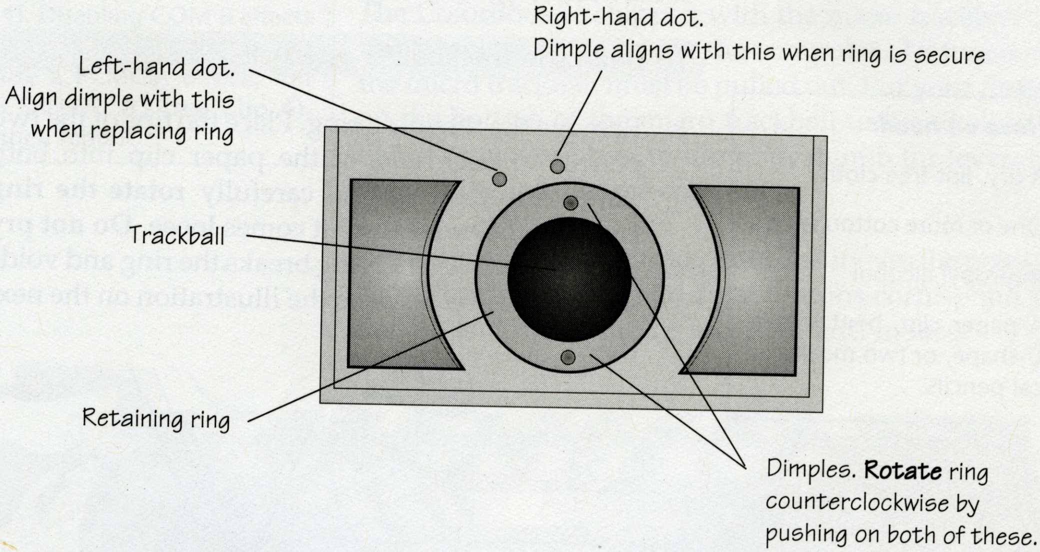


2. Remove the ring and ball.
3. Clean the ball by wiping it with the dry cloth. If you wish, you can moisten the cloth with alcohol.
4. Moisten the swab with alcohol and clean the two rollers in the cavity by rubbing them with the moistened swab. Take care not to leave behind any cotton fibers.
5. In a similar manner, clean the three standoffs in the cavity. They look like ball bearings. Take care not to leave behind any cotton fibers. The cavity should be quite clean when you are done. **Be sure to clean the cavity thoroughly!**



Empty socket

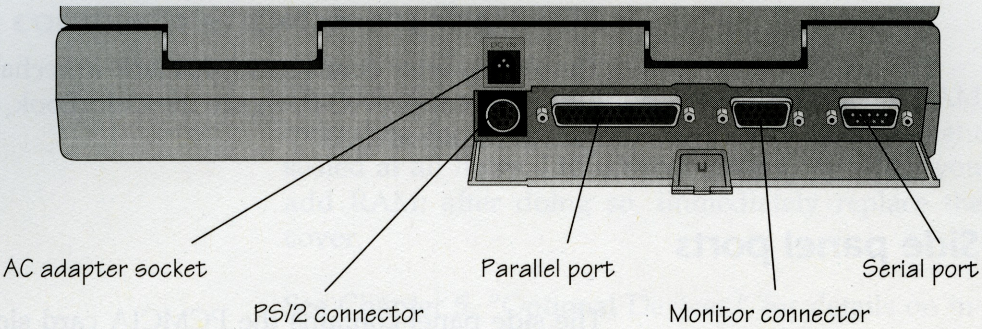
6. Allow the mechanism to dry for five minutes or so.
7. Replace the ball and ring. Align either dimple on the ring with the left-hand dot on the trackball stage, then turn it clockwise with the paper clip or pencils until it clicks into place.


Right-hand dot.
Dimple aligns with this when ring is secure
Left-hand dot.
Align dimple with this when replacing ring
Trackball
Retaining ring
Dimples. **Rotate** ring counterclockwise by pushing on both of these.

Ports, connectors, and slots

Rear panel ports

A hinged access cover protects the connectors and ports from dust and other airborne contaminants. Pull it down to plug in any external devices. (You do not have to open the access cover to plug in the AC adapter.) If you have no external devices connected to the ColorBook, keep the cover closed.



> ***Note:*** If you use a serial mouse (see Chp 5), you can still use the micro trackball as long as the COM numbers are different (see Chp 4). If you change a COM setting, run CSALLOC /G (see Chp 6) and reboot.

Serial port

The RS-232C serial port's (COM A) default setting is COM 1. The cable used to connect to this port must have a 9-pin female D-SUB connector.

> ***Note:*** If you attach a bidirectional device to the parallel port, set the High Speed Com Port item in the Controls menu in the Power Management program to ON, as described in Chapter 3.

Parallel (printer) port

You can connect a parallel printer or other device that uses a standard parallel interface to this bidirectional parallel port on LPT1. The cable from the printer or other device must terminate in a 25-pin male D-SUB connector. This is a bidirectional port, so you can connect a TBU to it.

External monitor connector

The ColorBook can display data an external analog VGA monitor connected to the 15-pin female D-SUB connector.

PS/2 connector

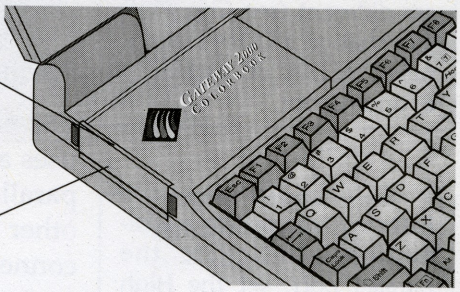
You can connect an external PS/2 keyboard or mouse to this socket. When an external keyboard is connected, you can still use the built-in keyboard. Simultaneous use of a PS/2 mouse and the micro trackball is **not** possible.

AC adapter connector

The AC adapter connects to this jack to recharge the battery or supply AC power to the ColorBook, but not both at the same time.

Side panel ports

The side panel contains the PCMCIA card slots. The two Type II slots can also be used as one Type III slot. A cover protects the slots from airborne contaminants. If you are not using PCMCIA cards, keep the cover closed.


Hook your fingernail in the top edge to flip the cover open.

PCMCIA sockets (shown with cover closed)

See Chapter 5, "Optional Devices," for details on configuring, connecting, and using PCMCIA cards.

Bottom panel

The bottom of the computer contains the compartment for the battery. See Chapter 1 for instructions on removing, installing, and charging the battery. **If the computer is in suspend mode, do not remove the battery unless the AC adapter is plugged in.**

RAM compartment

The ColorBook has a compartment for optional RAM modules. An access cover keeps the compartment sealed at all times. Lift off this cover only when you add RAM; after doing so, immediately replace the cover.

See Chapter 5, "Optional Devices," for details on installing RAM.

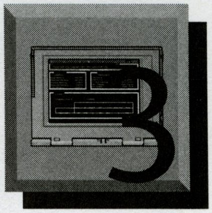
Installed software

Your ColorBook is shipped with at least the following software installed on the hard disk:

- ❏ MS-DOS 6.2
- ❏ Microsoft Windows for Workgroups 3.11
- ❏ Utilities that make your computer more powerful and easier to use, including an On-line Guide that includes an extensive glossary of computer terms.

The floppy disks packed with the ColorBook are backups. Chances are you'll never need them.

Power Management



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  Device menu 3-10
  Defaults 3-11
  Exit 3-11

The Power Management program

Your Gateway 2000 ColorBook has a Power Management program that allows you to customize the way you extend battery life. The ColorBook's power management system includes two power-saving modes:

☐ Standby mode

Many system components use power even when they are idle. In global standby mode, power to many system components is reduced after a certain amount of idle time. Using this menu, you also can turn off the power to two of the main power-consuming components (video and hard disk drive) individually.

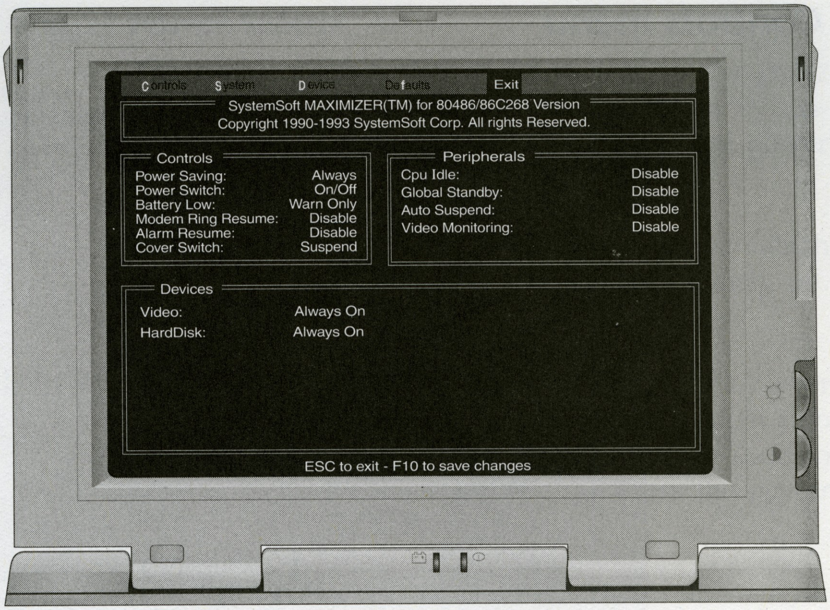
☐ Suspend/Resume mode

In suspend mode, the system appears to be off; minimum power is supplied to maintain the current state of the system. Pressing the power switch or any key returns the system to whatever application it was running, with no loss of data.

Starting Power Management

Access the Power Management program at any time by pressing Fn+Esc. The following screen appears, showing the current settings.

Note: You can also access Power Management by selecting the Power Management menu from within the Setup program. See the next chapter, "Setup Program," for details.



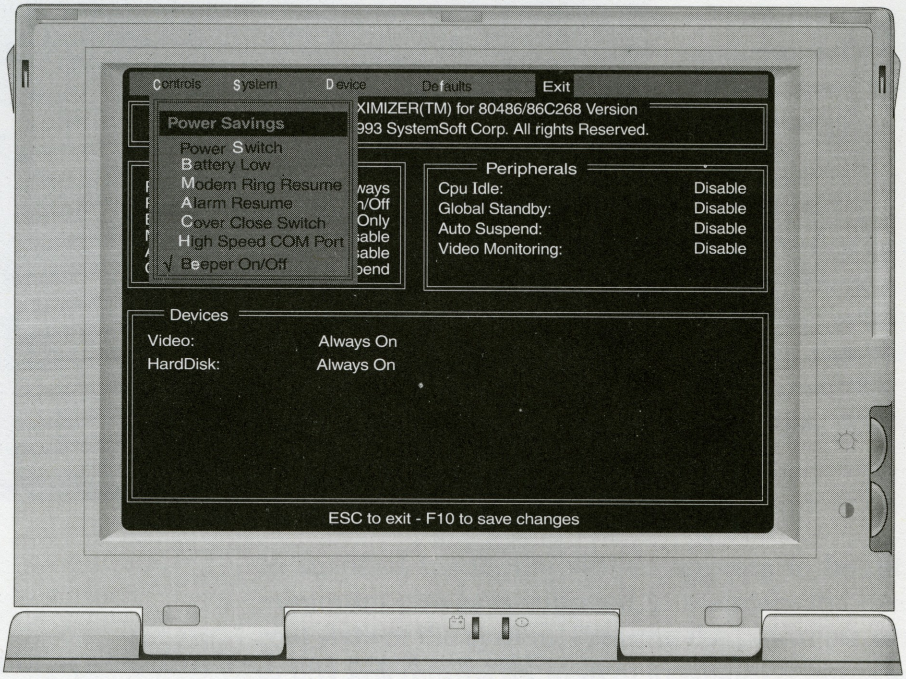
```
SystemSoft MAXIMIZER(TM) for 80486/86C268 Version
Copyright 1990-1993 SystemSoft Corp. All rights Reserved.

Controls                                Peripherals
Power Saving:          Always           Cpu Idle:             Disable
Power Switch:          On/Off           Global Standby:       Disable
Battery Low:           Warn Only        Auto Suspend:         Disable
Modem Ring Resume:     Disable          Video Monitoring:     Disable
Alarm Resume:          Disable
Cover Switch:          Suspend

Devices
Video:                 Always On
HardDisk:              Always On

ESC to exit - F10 to save changes
```

Use the Right and Left Arrow keys to highlight the desired drop-down menu, and press Enter. In each menu, use the Up and Down Arrow keys to highlight the desired item, and press Enter.

To back a step at a time without keeping changes, press Esc. To exit the Power Management program without going to the Exit menu, press Esc until a message appears asking if you want to save changes. At this message, press Esc only if you want exit the program without keeping any changes.

Press F10 at any time to save the settings, even if you Esc to exit later.

Controls menu


Controls
System
Device
Defaults
Exit
Power Savings
Power Switch
Battery Low
Modem Ring Resume
Alarm Resume
Cover Close Switch
High Speed COM Port
√ Beeper On/Off
XIMIZER(TM) for 80486/86C268 Version
993 SystemSoft Corp. All rights Reserved.
ways
n/Off
Only
sable
sable
pend

Peripherals

Cpu Idle: Disable
Global Standby: Disable
Auto Suspend: Disable
Video Monitoring: Disable

Devices

Video: Always On
HardDisk: Always On

ESC to exit - F10 to save changes

Details for the entries in the Controls menu are as follows:

Power Savings

The ColorBook runs with power from either the battery or the AC adapter. This menu allows you to use the power savings settings at all times, only when using battery power, or never. The default setting is ALWAYS, which means that regardless of the power source, the power saving function is enabled.

Move the cursor up or down to select when you want the Power Savings feature enabled and press Enter.

Power Switch

Note: When the ColorBook is shipped, the power switch is configured as an On/Off switch.

The Power Switch menu allows you to designate whether the power switch puts the system in suspend/resume mode, or operates as a normal power switch (On/Off mode).

If the setting is On/Off, pressing the power switch while power is on turns the power completely off. Press the power switch again to reboot.

If the setting is suspend/resume, pressing the power switch while the power is on puts the system into suspend mode; a small amount of power is used to maintain the current system status. Press the power switch again to resume operation.

The default setting is On/Off.

Note: Do not attempt to upgrade the memory while the system is in suspend mode. It must be OFF.

If this entry is set to suspend/resume, you cannot turn the ColorBook's power off without returning to this menu and setting this entry to On/Off.

Battery Low

The Battery Low item is for selecting whether you want the system to automatically enter suspend mode when the battery power begins to get low, or to warn you first but not enter suspend until the battery is nearly dead.

This is a toggle (on/off) option. If the setting is to enter suspend automatically, a check mark appears to the left of the Battery Low item. If there is no check mark, all you get is a beep. Highlight the item and press Enter to change its setting.

If the setting is unchecked, the system continues to run after the warning until the power from the battery becomes too low to operate the computer. Then the ColorBook goes into suspend mode anyway.

Note: When this happens, save your work immediately!

Regardless of the setting, when the battery is almost dead, the system beeps every 16 seconds and the Power LED changes from green to orange. At the same time, the system automatically drops to the lower CPU speed (indicated by the CPU Speed LED changing from green to orange) to conserve what power remains.

Modem Ring Resume

Use the Modem Ring Resume feature to determine whether the ColorBook automatically resumes from suspend to normal operating mode when the modem receives an incoming call.

This option is available only when a modem is in the PCMCIA slot.

Modem Ring Resume is a toggle (on or off) item. Highlight this item and press Enter to change the setting. The default setting is disabled (no check mark).

Alarm Resume

This option allows you to set a specific time for the ColorBook to automatically resume from suspend to normal operating mode.

To enable Alarm Resume:

1. Highlight the Alarm Resume item in the Controls menu and Press Enter. The following message appears on your screen:

```
Use ARROWS to Enable/Disable Alarm
```

2. Use the Up or Down Arrow keys to toggle to enable, then press Enter. The following message appears on your screen:

```
Use ARROWS to set the Alarm time
```

followed by a time.

3. Use the Right or Left Arrow keys to select the hours or minutes, then use the Up or Down Arrow keys to set the resume time. (The time is in a 24-hour format; for example, 18:00 means 6:00 PM.)
4. Press Enter. Alarm Resume is enabled. A check mark appears to the left of the Alarm Resume menu selection. To disable Alarm Resume, follow Steps 1 and 2 above, and use the Up or Down Arrow key to select Disable.

Cover Close Switch

Use the Cover Close Switch item to choose whether the ColorBook goes into suspend mode when the cover is closed, or if closing the cover only turns off the LCD screen (allowing you to operate the ColorBook closed with an external monitor and keyboard). The default setting is go into suspend mode.

To set what happens when you close the cover, highlight this item and press Enter. Choose the desired setting with the Up or Down Arrow key; press Enter.

High-Speed COM Port

Note: Set this item ON if you attach a bidirectional device to the parallel port.

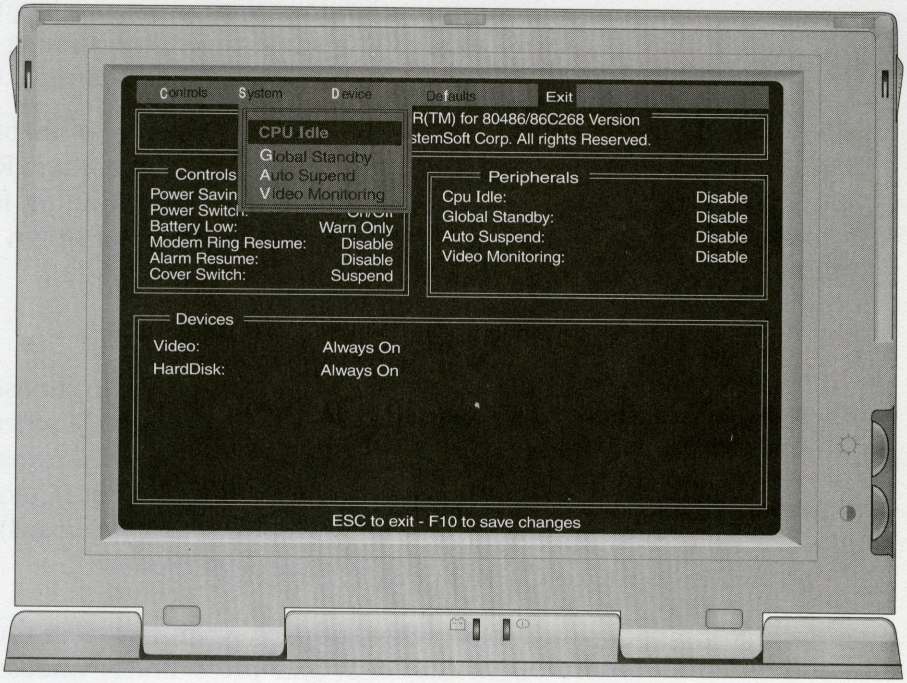
To use a high-speed modem (9600 bps or higher) in the serial or PCMCIA port, you must configure the computer for high-speed data transfer. High Speed Com Port is a toggle. Its default setting is OFF. Highlight the item and press Enter to change the setting. A check mark appears to the left of the item when high-speed data transfer is enabled.

Beeper On/Off

Note: Unless you are deliberately running the battery down, you should leave this item ON.

The Beeper On/Off item shows whether the low battery beeper beeps every 16 seconds when the battery gets low. It is a toggle. Its default setting is ON (a check mark appears). Highlight this item and press Enter to change the setting.

System menu



```
R(TM) for 80486/86C268 Version
stemSoft Corp. All rights Reserved.

Controls                                  Peripherals
Power Savin                               Cpu Idle:                 Disable
Power Switch:                             Global Standby:           Disable
Battery Low:               Warn Only      Auto Suspend:             Disable
Modem Ring Resume:         Disable        Video Monitoring:         Disable
Alarm Resume:              Disable
Cover Switch:              Suspend

Devices
Video:                     Always On
HardDisk:                  Always On

ESC to exit - F10 to save changes
```

Details for the entries in the System menu are as follows:

CPU Idle

The ColorBook can conserve power by reducing the CPU speed automatically when the CPU is idle for a set amount of time. The CPU speed reverts to its original, faster speed when it receives input.

The CPU Idle menu item allows you to select the amount of idle time before the CPU slows. You also can disable this feature altogether. Highlight this item and press Enter to see a list of idle times.

Highlight the desired wait, (or Disable) then press Enter. If you do not want to change the entry, press Esc to go back to the System menu.

Note: Setting the CPU Idle time setting to four seconds conserves battery life the most.

Global Standby

Note: Setting the Global Standby time setting to 1 minute conserves battery life the most.

In global standby mode, power to many system components is reduced after a certain amount of idle time. Both the LCD screen and the external monitor (if connected) become inactive. The ColorBook automatically returns to normal when it receives input.

The Global Standby item allows you to select the amount of idle time before the ColorBook enters global standby mode. Highlight this item and press Enter to see a list of idle times.

Highlight the amount of idle time and press Enter.

Auto Suspend

In suspend mode only enough power is supplied to maintain the state of the system. The power used in suspend is less than in global standby. Press the power switch or any key to return the system to whatever was running, with no loss of data. Modem ring resume and Alarm resume are available in suspend mode.

The Auto Suspend item allows you to select the idle time before the system goes into suspend mode. You also can disable this feature. Highlight this item and press Enter to see a list of idle times.

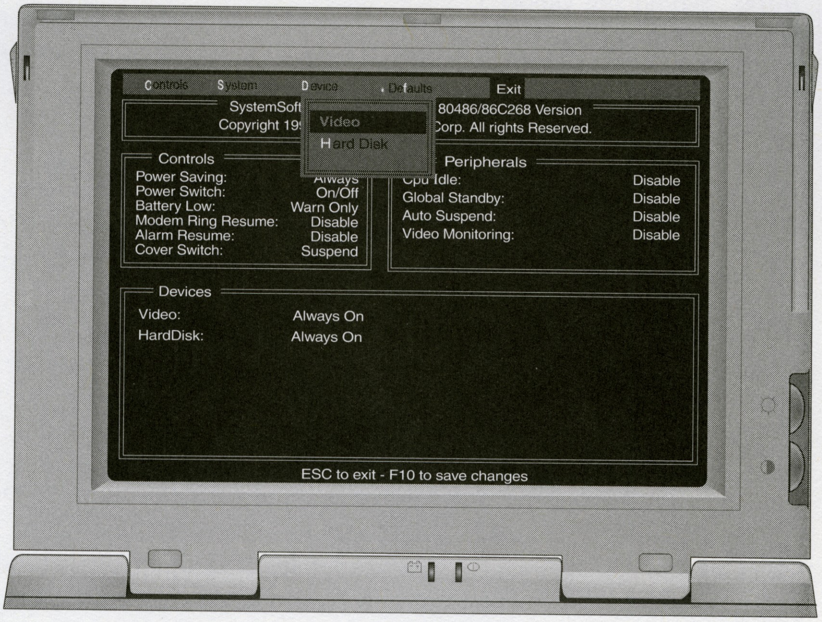
Highlight the amount of idle time before entering suspend mode (or Disable), then press Enter.

Video Monitoring

The Video Monitoring item lets the power management program know that the system is not idling while video memory is still working, so that the system will not begin counting time set for CPU idle, global standby, or auto suspend if the screen is changing.

Video monitoring is a toggle. Its default setting is Disable (no check mark). Highlight the item and press Enter to change the setting.

Device menu



SystemSoft 80486/86C268 Version
Copyright 19 Corp. All rights Reserved.

Controls
Power Saving: Always
Power Switch: On/Off
Battery Low: Warn Only
Modem Ring Resume: Disable
Alarm Resume: Disable
Cover Switch: Suspend

Peripherals
Cpu Idle: Disable
Global Standby: Disable
Auto Suspend: Disable
Video Monitoring: Disable

Devices
Video: Always On
HardDisk: Always On

ESC to exit - F10 to save changes

Details for the entries in the Device menu are as follows:

Video

Use the Video Timeout item to set how much time elapses from the last user input until the LCD screen and the external monitor automatically shut off. The display(s) reactivate when the ColorBook receives input from the keyboard or from another device (such as the micro trackball).

Hard Disk

Use the Hard Disk Timeout item to determine how much time elapses from the last hard disk access until the hard drive motor automatically shuts off. The next time an application accesses the hard disk, it spins up again automatically.

Defaults

Defaults resets the all power options to their default values. To set the options to their default values, highlight Defaults, then Press Enter, Up Arrow, or Down Arrow. The main screen shows all default settings.

Exit

Exit is for exiting from the Power Management program if you prefer not to press F10 (save settings) or Esc. Use the right or left arrow keys to highlight Exit, and press Enter, Up Arrow, or Down Arrow.

If you made no changes, the following message appears:

```
       Esc to exit now

   Any other key to continue
```

If you changed anything, the following message appears:

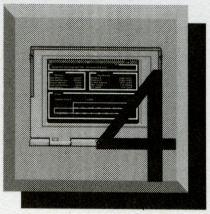
```
 Do you wish to save your changes?

Esc to exit-Enter to save and exit

     Any other key to continue
```

If you press Esc, none of your changes are saved to the battery backed-up memory. You just exit from the Power Management program.

If you press Enter, the system writes the new setup values into the battery backed-up memory, and then you exit from the Setup program.

To save current changes without exiting, press F10 at any time.

Setup Program



4

Contents

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    Standard menu 4-4
    Preferences 4-6
    VGA 4-9
    Memory 4-10
    Power Management 4-11
    Defaults 4-11
    Exit 4-12

Introduction

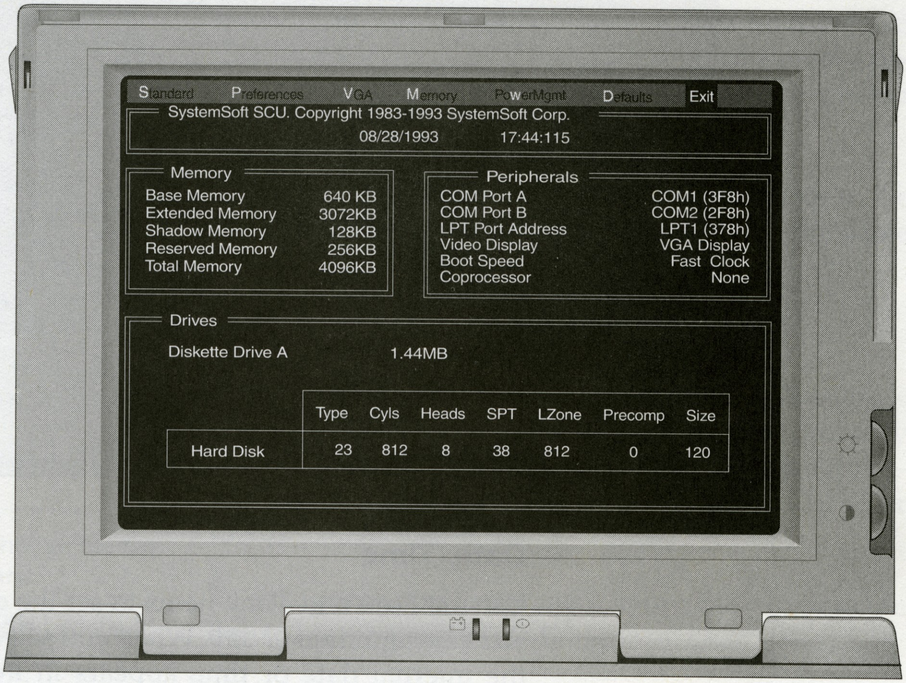
Sometime you may need to customize your ColorBook's system configuration. The Setup program in the ColorBook's CMOS lets you review and change many aspects of its basic functions. The Setup program lets you:

- ☐ Change the system date and time
- ☐ Describe optional hardware you add
- ☐ Change certain hardware functions, such as the COM ports
- ☐ Create passwords
- ☐ Access the system's power management software.

You also can use Setup simply to check the system's current settings. Note, however, that when you exit Setup, the system automatically reboots even if you made no changes. Rebooting erases anything in RAM.

Starting Setup

The Setup program is always available from DOS. To access it, press Ctrl+Alt+S at the DOS prompt (NOT within Windows or an application). The main screen appears.



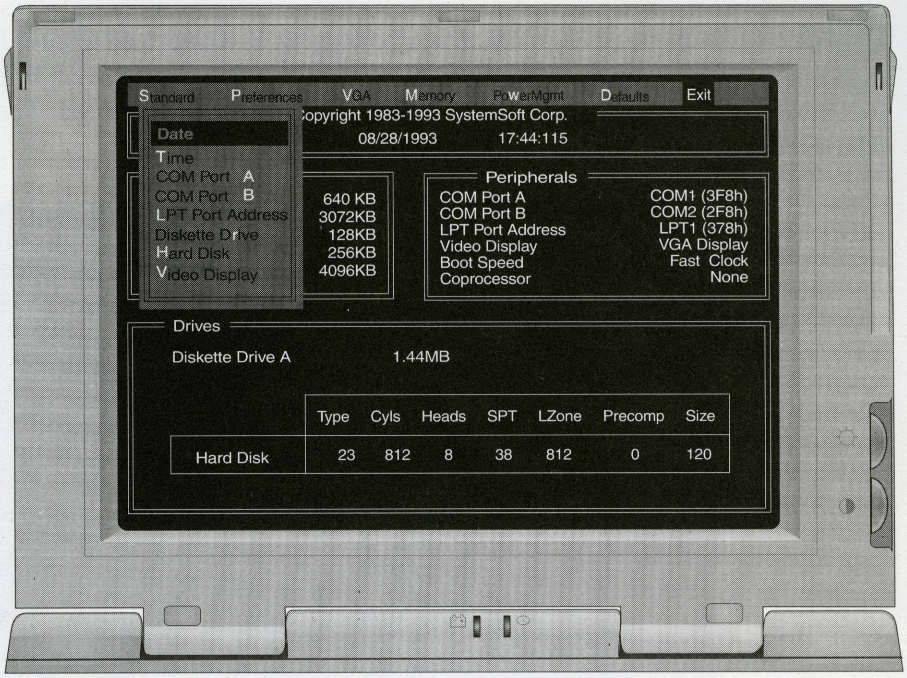
```
SystemSoft SCU. Copyright 1983-1993 SystemSoft Corp.
                 08/28/1993          17:44:115

Memory                              Peripherals
Base Memory        640 KB           COM Port A            COM1 (3F8h)
Extended Memory    3072KB           COM Port B            COM2 (2F8h)
Shadow Memory       128KB           LPT Port Address      LPT1 (378h)
Reserved Memory     256KB           Video Display         VGA Display
Total Memory       4096KB           Boot Speed             Fast  Clock
                                    Coprocessor                  None

Drives
Diskette Drive A            1.44MB

                  Type  Cyls  Heads  SPT  LZone  Precomp  Size
   Hard Disk       23   812    8     38   812      0      120
```

Use the Right and Left Arrow keys to highlight the desired menu, and press Enter. Use the Up and Down Arrow keys to highlight the desired menu item, and press Enter.

To exit the Setup program without going to the Exit menu, press Esc at any time. You may have to press Esc more than once to quit the program. When you are prompted, press Enter instead of Esc if you want to save changes.

Press F10 at any time to save changes without exiting.

Standard menu


Standard
Preferences
VGA
Memory
PowerMgmt
Defaults
Exit
Date
Time
COM Port A
COM Port B
LPT Port Address
Diskette Drive
Hard Disk
Video Display

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08/28/1993 17:44:115

640 KB
3072KB
128KB
256KB
4096KB

Peripherals

COM Port A	COM1 (3F8h)
COM Port B	COM2 (2F8h)
LPT Port Address	LPT1 (378h)
Video Display	VGA Display
Boot Speed	Fast Clock
Coprocessor	None

Drives

Diskette Drive A 1.44MB

	Type	Cyls	Heads	SPT	LZone	Precomp	Size
Hard Disk	23	812	8	38	812	0	120

Date, Time

Use the Date and Time items to set the current calendar date and time of day. When you select either item, the internal date or time appears in mm/dd/yy or hh/mm/ss format in the center of the screen. Move the cursor to the part you want to change and type the desired value.

After you change the date or time, press Enter.

COM Port A

Note: If you use a PCMCIA slot, and you change a COM setting, run CSALLOC /G (see Chp 6), then reboot.

This is a port assignment selection, and sets the designation (normally COM 1) and address (normally 3F8h) of the serial port on the back of the ColorBook. You probably never need to change this entry.

Note: The choices for COM A and B are:

COM1 (3F8h) (default A)
COM2 (2F8h) (default B)
COM3 (3E8h)
COM4 (2E8h)
Disable

To change the port assignment, move the cursor to the desired setting and press Enter. If you do not want to change the entry, press Esc to return to the Standard menu.

COM Port B

This sets the designation (normally COM 2) and address (normally 2F8h) of the built-in port for the micro trackball. **To use an external mouse, you must Disable COM port B.** Except for this, you probably never need to change this entry.

Note: If you use a serial device in a PCMCIA slot, be sure the slot, COM A, and B are all different. Then run CSALLOC /G (see Chp 6), then reboot.

To change the port assignment, move the cursor to the desired setting and Press Enter. **Do not use the same number for COM A and COM B.**

LPT Port Address

This sets the designation (normally LPT1) and address (normally 378h) of the parallel port. You probably never need to change this entry (unless some application needs to use a parallel port designated as LPT2 or LPT3).

Note: The choices for the parallel port are:

LPT1 (378h) (default)
LPT2 (278h)
LPT3 (3BCh)
Disable

To change the port assignment, move the cursor to the desired setting and press Enter.

Diskette Drive

Do not change this default setting. Diskette drive A must be "1.44MB."

Hard Disk

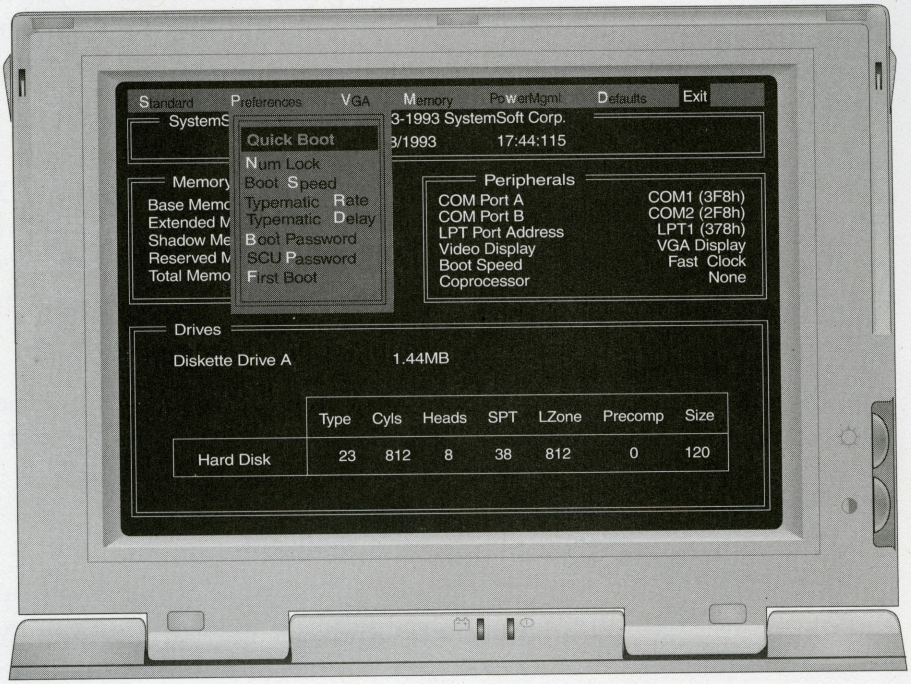
Note: If you change to a larger (or smaller) hard drive, highlight this item and press Enter. Press F10 to save the new hard drive settings. This prevents disk errors.

Do not change this default setting. The setting for the hard disk must be "Auto."

Video Display

Do not change the default setting. The Video Display selection must be "VGA Display."

Preferences


Standard
Preferences
VGA
Memory
PowerMgmt
Defaults
Exit
Quick Boot
Num Lock
Boot Speed
Typematic Rate
Typematic Delay
Boot Password
SCU Password
First Boot

SystemS

3-1993 SystemSoft Corp.

3/1993 17:44:115

Memory

Base Memo
Extended M
Shadow Me
Reserved M
Total Memo

Peripherals

COM Port A	COM1 (3F8h)
COM Port B	COM2 (2F8h)
LPT Port Address	LPT1 (378h)
Video Display	VGA Display
Boot Speed	Fast Clock
Coprocessor	None

Drives

Diskette Drive A 1.44MB

	Type	Cyls	Heads	SPT	LZone	Precomp	Size
Hard Disk	23	812	8	38	812	0	120

Quick Boot

Enable the Quick Boot to have the ColorBook bypass the memory test in the self-test performed at start-up. Quick Boot is a toggle. Highlight the item and press Enter to change the setting. A check mark appears next to the item when the ColorBook is set to skip the memory test.

Num Lock

Use the Num Lock feature to activate the ColorBook's imbedded numeric keypad at start-up. You can always use the NumLock key on the ColorBook's built-in keyboard to activate and deactivate Num Lock mode, regardless of your selection in the Setup program. Num Lock is a toggle. Highlight the item and press Enter to change the setting. A check mark appears next to the item when the numeric keypad is enabled at start-up.

Boot Speed

The Boot Speed item sets the start-up CPU speed. When running under battery power, using the slower speed extends battery life.

Highlight the desired choice and press Enter.

Typematic Rate

The typematic rate is the speed at which a key repeats when it is held down. Highlight the desired typematic rate and press Enter.

Typematic Delay

The typematic delay is the time from when you press and hold a key to when the character starts repeating. Highlight the desired delay and press Enter.

Boot Password

The Boot Password protects your ColorBook from unauthorized use. If the Boot Password is enabled, no one can operate the ColorBook without first typing the password.

To enable the Boot Password:

1. Highlight the Boot Password item in the Preferences menu. Press Enter.
2. Type 4 to 8 typeable characters. The password is **not** case sensitive. Press Enter.
3. The system asks you to reenter the password for verification. Reenter the password. Press Enter.
4. If the entry is verified, a check mark appears to the left of the Boot Password menu selection.

After you define a password, the following line appears when the computer boots:

```
Enter Your BOOT PASSWORD
```

You must type the password exactly as you entered it before using the system. If you fail three times, the system reboots.

We recommend that you write down your password and store the reminder in a safe place, or use a word you will not forget and known only to you, such as your mother's maiden name. If you forget your password, the only way to access your computer is to send it back to Gateway 2000 with proof of purchase.

Note: If you choose not to enable either of the ColorBook's passwords, any other user may choose to enable the Boot Password, select a password, and lock you out of your own ColorBook! An alternative, however, is to enable a Setup password (described next), so that only you can enter the Setup program to enable the Boot Password.

SCU Password

Note: SCU is for System Configuration Utility, the official name of the Setup program.

Use this menu item to enable a password for the Setup program. If the SCU password is enabled, no one will be able enter Setup and change the system configuration without first typing the password.

To enable the SCU Password:

1. Highlight the SCU Password item in the Preferences menu. Press Enter.
2. Type 4 to 8 typeable characters. The password is **not** case sensitive. Press Enter.
3. The system asks you to reenter the password for verification. Reenter the password. Press Enter.
4. If the entry is verified, a check mark appears to the left of the Boot Password menu selection.

After you define a password, the following line appears when you press Ctrl+Alt+S at a DOS prompt:

```
Enter your SETUP PASSWORD
```

You must type the password exactly as you entered it. If you fail three times, the system reboots.

We recommend that you write down your password and store the reminder in a safe place, or use a word you will not forget and known only to you, such as your mother's maiden name. If you forget your password, the only way to access your computer is to send it to Gateway 2000 with proof of purchase.

Note: If you choose not to enable either of the ColorBook's passwords, any other user of the ColorBook may choose to enable the Boot Password, select a password, and lock you out of your own ColorBook. If you enable a Setup password, only you can enter the Setup program to enable the Boot Password.

First Boot

At boot the operating system loads from the hard disk, floppy disk drive, or PCMCIA card. With the default setting, the BIOS first checks the floppy drive (Drive A:), for the operating system. Finding nothing, it checks the hard drive (Drive C:). If it still finds nothing, it checks the PCMCIA card.

The First Boot item enables you to choose what the BIOS checks first. Highlight the desired item and press Enter.

VGA

The VGA menu has one item, Display Mode. Highlight it and press Enter. It allows you to choose among three display modes.

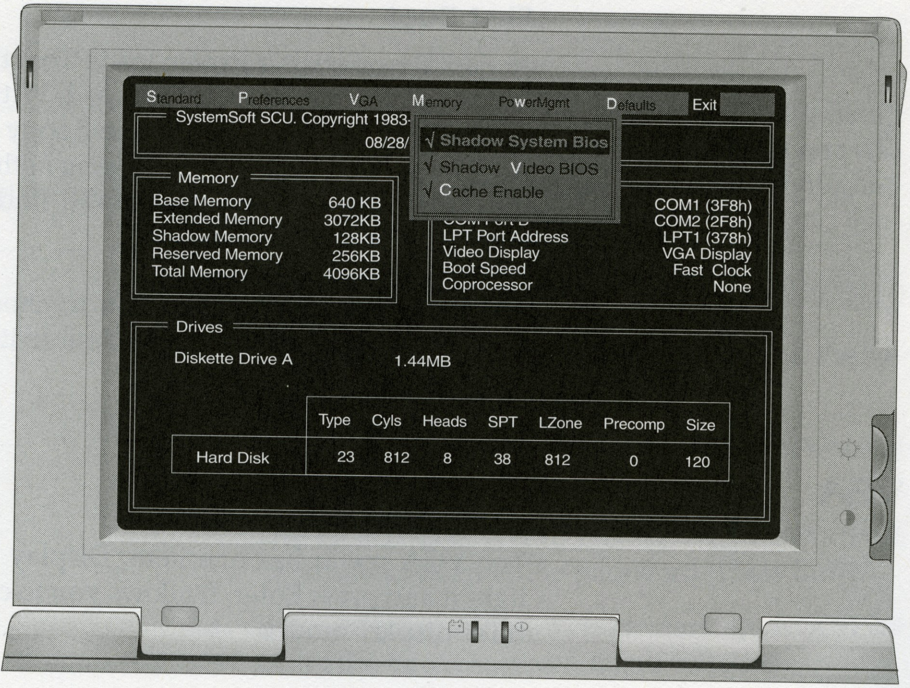
Display Mode

The ColorBook has a built-in LCD screen. In addition, it can connect to an external monitor. Use this menu to select which display is active. LCD means that only the built-in LCD is active. CRT means only the external monitor is active, and BOTH indicates that both are active simultaneously. BOTH only works if the monitor is at 640 x 480.

Highlight the desired item and press Enter.

You can toggle among these settings at any time by pressing Fn+F1, which is a lot handier than digging clear into this menu.

Memory


Standard
Preferences
VGA
Memory
PowerMgmt
Defaults
Exit
√ Shadow System Bios
√ Shadow Video BIOS
√ Cache Enable

SystemSoft SCU. Copyright 1983-

08/28/

Memory

Base Memory	640 KB
Extended Memory	3072KB
Shadow Memory	128KB
Reserved Memory	256KB
Total Memory	4096KB

	COM1 (3F8h)
	COM2 (2F8h)
LPT Port Address	LPT1 (378h)
Video Display	VGA Display
Boot Speed	Fast Clock
Coprocessor	None

Drives

Diskette Drive A 1.44MB

	Type	Cyls	Heads	SPT	LZone	Precomp	Size
Hard Disk	23	812	8	38	812	0	120

Shadow System BIOS

The ColorBook can copy some of its system BIOS from slow BIOS ROM into RAM, and the system runs somewhat faster. This is called shadowing the BIOS. Shadow System BIOS is a toggle. Its default setting is enabled (a check mark appears). Highlight the item and press Enter to change the setting.

Shadow Video BIOS

The ColorBook can copy its video BIOS into RAM, too. Shadow Video BIOS is a toggle. Its default setting is enabled (a check mark appears). Highlight the item and press Enter to change the setting.

Cache Enable

The cache memory is an area of RAM used to temporarily hold certain data kept on the hard disk. Enabling this feature speeds up many applications. Some programs, however, may not work with cache enabled. Its default setting is enabled (a check mark appears). Highlight the item and press Enter to change the setting.

Power Management

Choose this item to access the Power Management program exactly as if you had pressed Fn+Esc. See Chapter 3 for information about power management.

Defaults

The Defaults menu the configuration options in the Setup program to their defaults. To set all system configuration options to their defaults, highlight Defaults and Press Enter, Up Arrow, or Down Arrow .

Exit

Note: You can exit the Setup program at any time by pressing Esc until the same message appears.

To exit the Setup program, highlight Exit and press Enter, Up Arrow, or Down Arrow. If no entries have changed, the following message appears:

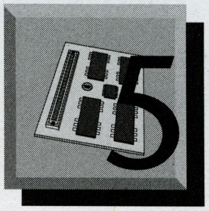
```
Esc to exit now
Any other key to continue
```

If any items changed, the following message appears:

```
Do you wish to save your changes?
Esc to exit-Enter to save and exit
Any other key to continue
```

If you press Esc, the program exits without saving any changes. If you press Enter, the system writes the new setup information into the battery backed-up memory, and then exits.

You also may press F10 at any time to save changes without exiting.



Optional Devices

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Serial mouse or modem 5-4
External monitor 5-5
Parallel port 5-6
PCMCIA cards 5-6
PCMCIA drivers and utilities 5-8

Introduction

Gateway 2000 has accessories to improve the performance of your ColorBook, including expansion RAM modules, an external keyboard, mice, a monitor, and a number of PCMCIA cards. This chapter describes how to install these devices.

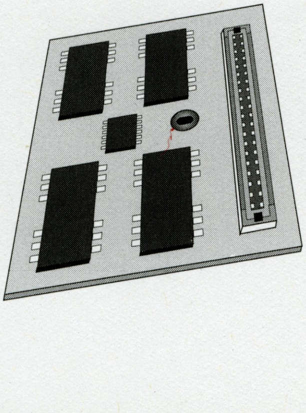
Expansion RAM modules

The ColorBook comes standard with 4MB of system memory, or RAM on the system board. You can increase the amount of RAM to 8, 12, or 20MB by adding one or two expansion RAM modules, which are available in 4MB and 16MB sizes (the 4MB RAM module has a socket for one more module on it).

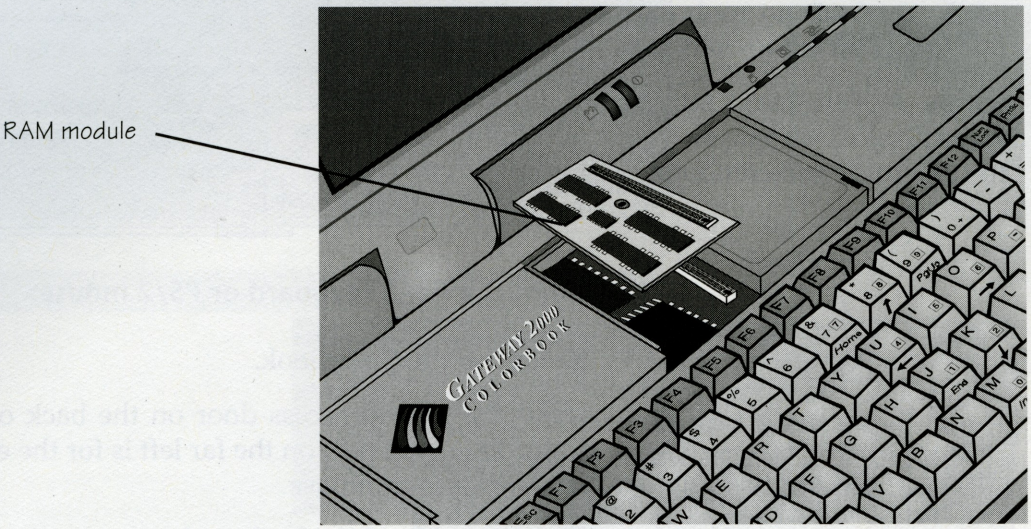
To install an expansion RAM module:

Note: You can ruin the RAM module if you install it with the computer in suspend mode! Be sure the power is completely off. We do not warrant modules destroyed by insertion into a powered computer.

1. Turn the ColorBook off. Be sure the computer is powered completely off, not just in suspend mode. Check the Setup program, if necessary, to be sure.
2. Remove the RAM module compartment cover.
3. Insert the module into the socket. It goes in only one way. Press firmly until the module is fully seated in the socket.
4. Fasten the module in place with the supplied screw.
5. Replace the compartment cover.



4MB RAM module

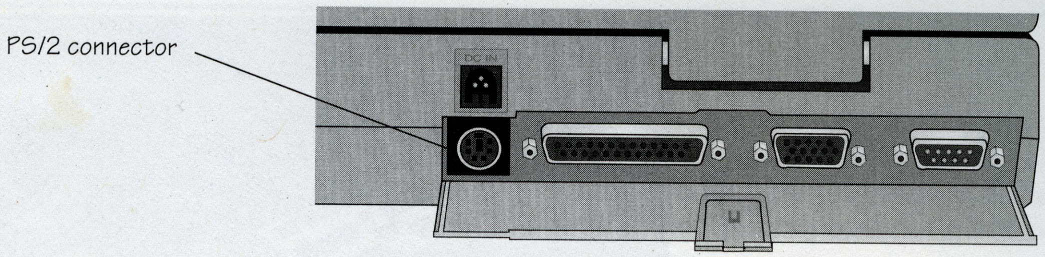


The first time you start the ColorBook after installing expansion RAM, an error message appears. Press Ctrl+Alt+S to start the Setup program. Once in Setup, the ColorBook automatically checks the RAM size. Press F10 to have the system remember the new amount of memory. Exit Setup. When the computer reboots you are ready to go!

See Chapter 4 for information about the Setup program.

External keyboard or PS/2 mouse

The ColorBook supports the use of an external PS/2 keyboard or mouse. While an external keyboard is connected, you still can use the ColorBook's built-in keyboard. **You cannot use the micro trackball while a PS/2 mouse is connected.**



To connect a PS/2 keyboard or PS/2 mouse:

1. Switch off the ColorBook.
2. Open the hinged access door on the back of the ColorBook. The port on the far left is for the external keyboard or mouse.
3. Plug the cable of the keyboard or mouse into the port.

Note: If you connect a PS/2 mouse, disable the micro trackball on COM B (see Chp 4). Then run CSALLOC /G (see Chp 6), then reboot.

When you power up the computer, it automatically recognizes the external keyboard or mouse.

Serial mouse or modem

The ColorBook uses COM A for the serial port on the back. As long as it is set to a different COM number from the number for COM B (the micro trackball's COM port) you can use the serial port and trackball together. Your ColorBook comes with drivers that let you use the micro trackball or a mouse with applications running under both DOS and Windows.

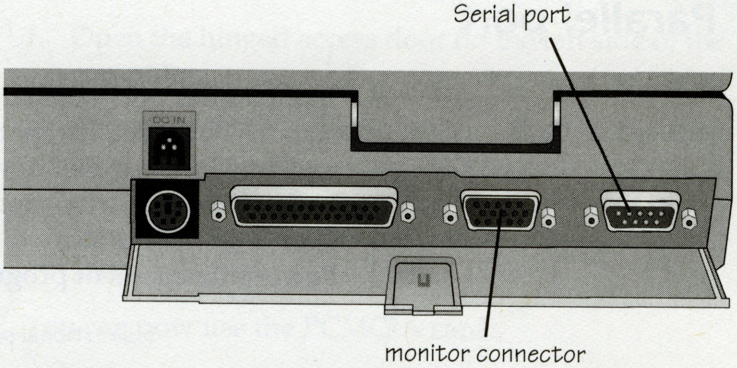
Note: After you change a COM setting, run CSALLOC /G. See Chp 6.

To connect a serial device:

1. Be sure COM A is different from COM B. See Chapter 4 for information about the Setup program.
2. Switch off the ColorBook.

Note: When you use a high-speed modem, set the High Speed Com Port menu selection to ON in the Power Management program. See Chapter 3 for details.

3. Open the hinged access door on the back of the ColorBook. The serial port in on the far right.
4. Connect the device to the serial port. A mouse works as soon as you power up the ColorBook. A modem requires telecommunication software, but it is ready immediately.



External monitor

You can attach a VGA or multifrequency external monitor to the ColorBook.

To attach a monitor:

1. Switch off the ColorBook
2. Open the hinged access door on the back of the ColorBook. The second connector from the right is for the monitor.
3. Connect the cable from the monitor to the connector on the back panel of the computer. Tighten the thumb screws on the connector.

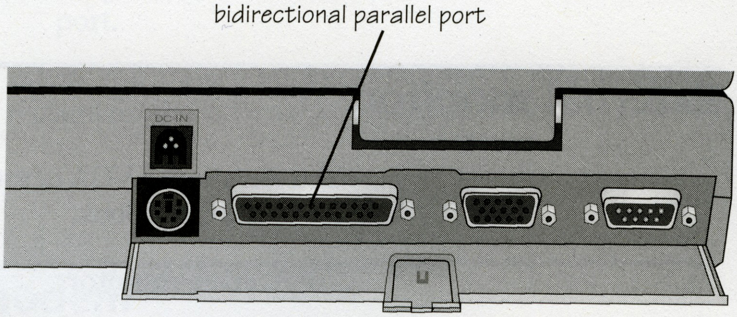
Note: The external monitor drivers support higher resolutions than the LCD screen does, so the BOTH setting works only if the monitor is set to 640 x 480.

If your setting in the VGA menu in the Setup program is BOTH or CRT, powering up the ColorBook activates the monitor. If your setting is LCD, the monitor does not become active when you turn on the ColorBook. You can enter the Setup program and change the VGA setting to BOTH or CRT. See Chapter 4, "System Setup," for details.

You also can change the display mode at any time by pressing the Fn and F1 keys simultaneously. Fn+F1 toggles among LCD mode, CRT mode, and BOTH.

Parallel port

The parallel port on the back of the ColorBook is a standard bidirectional parallel port. You may connect any standard parallel device to it. If you use it in its bidirectional capacity, you must enable the High Speed Com Port menu item in the Controls menu in the Power Management program, described in Chapter 3.



PCMCIA cards

PCMCIA is an industry standard for memory, mass storage, and input/output, tailored to the special needs of notebook computers: small size, ruggedness, and flexible operation.

More hard disk, memory, modem, network, and other cards are expected to become available.

PCMCIA cards are classified by thickness. The Gateway 2000 ColorBook's PCMCIA slots can accept two Type II cards or one Type III card.

You can insert a PCMCIA card at any time, whether the ColorBook is on or off, whether you're in Windows or DOS. The software driver automatically looks at the card when it's inserted, so you may use the card immediately after insertion.

Note: Some cards should be inserted while the ColorBook is in DOS, not Windows.

To insert a PCMCIA card:

1. Open the hinged access door on the left side of the computer.
2. Insert the PCMCIA card slowly. Push in the card until the appropriate card eject button pops out. If the ColorBook is in operating mode, it beeps twice. Inserted properly, the card sticks out about a half an inch from the ColorBook.

Note: If the Beeper On/Off setting in the Controls menu of the Power Management program is OFF, no sound is made.

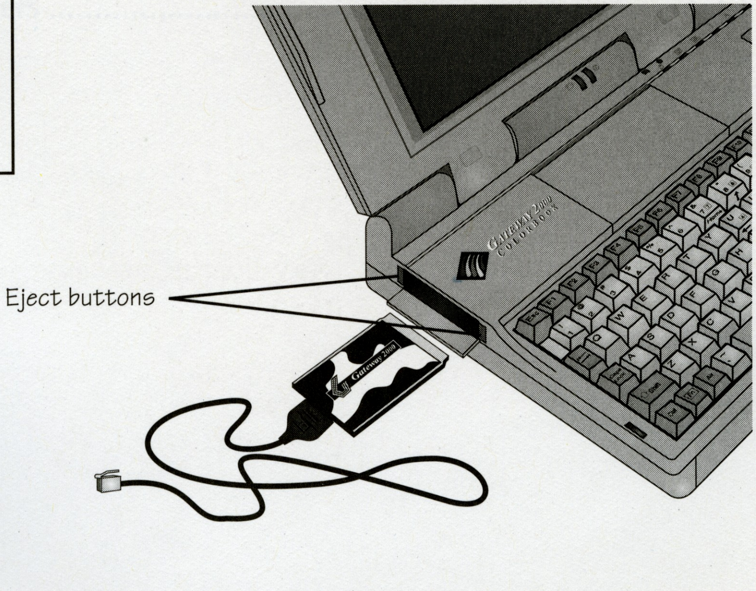
You can now use the PCMCIA card.

To remove a PCMCIA card:

1. Push the card eject button next to the PCMCIA card slot. The card pops out about half an inch.
2. Pull out the PCMCIA card. If the ColorBook is in operating mode, it beeps twice.

You may remove the PCMCIA card at any time.

Note: PCMCIA cards consume power even when they are not in use. You conserve battery power by removing the card when you're not using it.

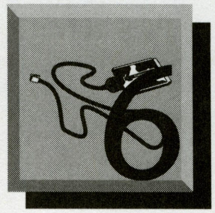


When you use a high-speed modem connected to the PCMCIA socket, set the High Speed Com Port menu item in the Controls menu of the Power Management program to ON. See Chapter 3 for details.

PCMCIA drivers and utilities

Your ColorBook comes loaded with a full array of PCMCIA drivers, and a configuration utility that allows you to modify the way your computer interacts with PCMCIA cards. For more information, see Chapter 6, "PCMCIA Drivers and Utilities."

PCMCIA Drivers and Utilities



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Introduction

The Gateway 2000 ColorBook comes standard with a full array of drivers and utilities for integrating PCMCIA cards with both DOS and Windows.

Default Settings

Although you can change the settings described below directly by editing the appropriate file, we recommend that you use the PCMCIA configuration utility (CONFIG.EXE in the cardsoft directory) instead.

CONFIG.SYS

These are the default lines in the CONFIG.SYS file that affect PCMCIA functionality:

```
DEVICE=C:\CARDSOFT\SSCIRRUS.EXE

DEVICE=C:\CARDSOFT\CS.EXE

DEVICE=C:\CARDSOFT\CSALLOC.EXE
C:\CARDSOFT\CSALLOC.INI

DEVICE=C:\CARDSOFT\CARDID.EXE
```

Installing PCMCIA software

Note: Run CSALLOC /g if you disable COM B to use a PS/2 mouse, then reboot.

We have already run the setup program and modified the system files to work with whatever PCMCIA devices you purchased with your ColorBook. All you need to do is plug in the device and run your software.

Follow these instructions if you need to reinstall the PCMCIA software.

1. Insert the PCMCIA utilities diskette into the floppy drive.

2. At the DOS prompt, change to the A drive by typing:

   ```
   a:
   ```

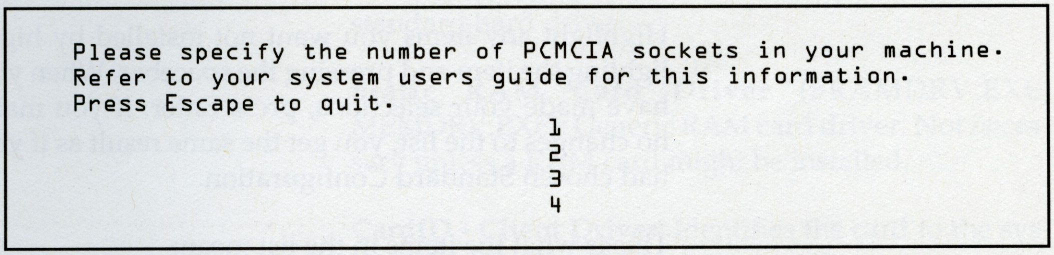
   and pressing Enter.

3. Type:

   ```
   install
   ```

   and press Enter. A title screen appears. Press any key to continue. A screen appears asking whether this is a first-time install or an upgrade.

4. Press Enter to select First Time Install. A screen appears explaining how to choose menu items in the installation software (use the arrow key to highlight the desired choice and press Enter), and the choice of custom or standard installation. We recommend Standard Installation unless you do not want to install PCMCIA hard disk or SRAM support. In either case, a screen similar to the following appears:



```
Please specify the number of PCMCIA sockets in your machine.
Refer to your system users guide for this information.
Press Escape to quit.
                            1
                            2
                            3
                            4
```

5. Choose 2. A screen appears asking you to choose the destination drive.

6. Press Enter to choose drive C. A screen appears showing a suggested path for the files to install. We recommend you press Enter to accept the default path, \CARDSOFT.

7. A screen appears asking you to confirm this choice. Press Enter. If you chose Standard Configuration, the screen lists the files as they are copied, then a

message appears warning that the install program is about to modify your CONFIG.SYS.

8. Press Enter to allow the changes to CONFIG.SYS. When the changes are complete, press any key *except* Esc to return to DOS.
9. Remove the diskette and reboot.

If you chose Custom Installation

If you chose Custom Installation in step 4, a screen similar to the following appears after you confirm your path in step 7:

```
Select the CardSoft  components you wish to install.
Use the spacebar to change selections. Press Escape to quit.

           Cirrus Socket Services                YES
           Card Services                         YES
           Card Services Allocation Utility      YES
           ATA Card Driver                       YES
           Static RAM Card Driver                YES
           CardID - Client Driver                YES
           Card Information Utility              YES
```

Highlight any items you want not installed by highlighting the item and pressing the spacebar. When you have made your selections, press Enter. If you make no changes to the list, you get the same result as if you had chosen Standard Configuration.

This is what the items in the list mean:

Cirrus Socket Services (SSCIRRUS.EXE): Enables the system to communicate with the socket. This file is necessary!

Socket Services provides a standard software interface to host controller chips and isolates the socket hardware from higher level software. Socket Services includes functions such as configuring a socket for an I/O or memory interface and controlling socket power voltages.

Card Services (SC.EXE): Enables the socket to communicate with the card. This file is necessary!

The Card Services driver manages competition for system resources , as well as manages the resources and configuration for cards and adapters.

Card Services Allocation Utility (CSALLOC.EXE): Manages card IRQ, memory, and address. This file is necessary!

This utility is described in the next section.

ATA Card Driver (ATADRV.EXE, ATAINIT.EXE): Generic hard disk driver. Not necessary unless a hard drive card might be installed.

ATADRV.EXE is a block device driver that supports ATA/Type 3 hard drive PCMCIA cards. The ATAINIT.EXE utility places a hard disk partition table onto a blank ATA drive. This utility initializes the ATA drive in the same manner as FDISK does with a standard hard drive.

Static RAM Card Driver (SRAMDRV.EXE, MEMDRV.EXE): Generic RAM card driver. Not necessary unless a RAM card might be installed.

CardID - Client Driver: Identifies the card to the system. This file is necessary!

This device driver detects the insertion and removal of PCMCIA cards, automatically determines the card type upon insertion, and then configures the card and socket.

Card Information Utility: (CARDINFO.EXE) This utility identifies an inserted card to the rest of the system. If it does not show a card present when one is inserted, the PCMCIA drivers are configured incorrectly.

Continue with the installation from step 7.

Some notes to help you

- ☐ If you use a Windows-based communications package such as CommWorks, be sure to insert your PCMCIA modem card before you run Windows.
- ☐ If you must change a card while in Windows, install the CardSoft Windows drivers by running SETUP from the CardSoft PCMCIA Utilities diskette.
- ☐ If you install the modem on COM 3 rather than on COM 1 or COM 2, you must make a minor change to the Ports Setup-Advanced Settings, in the Windows Control Panel: Select IRQ 5 unless you specifically configured the modem for another IRQ.

PCMCIA utilities

Resource allocation utility

Run the CSALLOC utility whenever you change I/O port, IRQ, or memory settings (for example, if you change your COM port settings in Windows, or you enable the EMM386 memory manager).

CSALLOC.EXE is a DOS utility that scans the system for available memory, I/O Port, and IRQ resources. It writes this information to the file CSALLOC.INI, which is used by Card Services (CS.EXE) to determine what system resources are available for PCMCIA card configuration.

CSALLOC can be run in two modes, both of which must be run from the DOS command line (they cannot run in a Windows DOS window):

CSALLOC /g

Runs CSALLOC in non-display mode. When you enter this command at the DOS prompt, it prompts you to remove any PCMCIA cards from the system. Remove any inserted PCMCIA cards, then press any key. CSALLOC then scans the system for available resources, and writes information into the CSALLOC.INI file.

CSALLOC /g /d

Runs CSALLOC in display mode. When you add the /d switch to the command, CSALLOC displays a series of messages as it scans system resources, then lists the available resources on the screen.

Configuration utility

The configuration utility is an easy-to-use program for changing the way the ColorBook interacts with PCMCIA cards. It configures and recognizes various cards, modifies the executable files, and determines available system resources.

The Configuration utility modifies the CARDID.INI and CSALLOC.INI files.

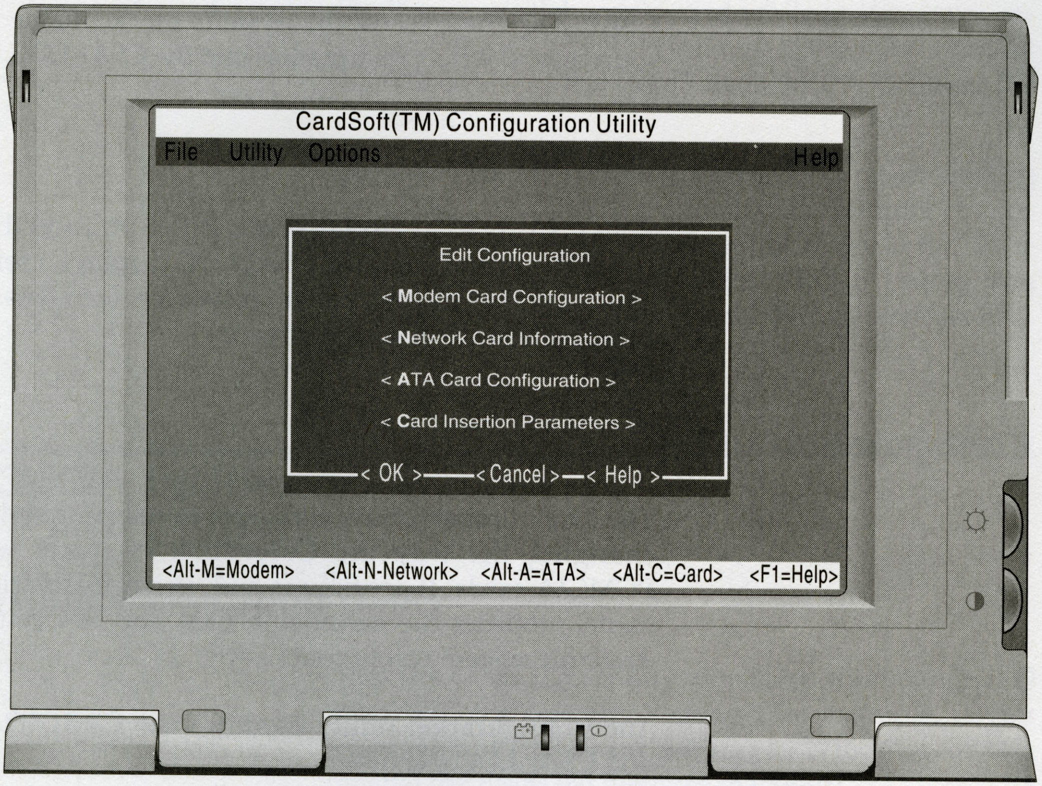
To run the configuration utility:

1. If you are in Windows, exit to DOS.
2. Go to the C:\CARDSOFT directory.
3. Type:

   ```
   config
   ```

   and press Enter. The main configuration utility screen appears. It has a menu bar at the top and help information at the bottom.

4. To start using the utility, press Alt+F to open the File menu. Since "Edit Configuration . . ." is highlighted by default, press Enter to select it. A list of configurable items appears.


CardSoft(TM) Configuration Utility
File
Utility
Options
Help
Edit Configuration
< Modem Card Configuration >
< Network Card Information >
< ATA Card Configuration >
< Card Insertion Parameters >
< OK >
< Cancel >
< Help >
<Alt-M=Modem>
<Alt-N-Network>
<Alt-A=ATA>
<Alt-C=Card>
<F1=Help>

5. Choose the item you want to edit by holding down the Alt key while pressing the appropriate highlighted letter.

6. To move among items, press the Tab key; type a value or press the spacebar to toggle a setting.

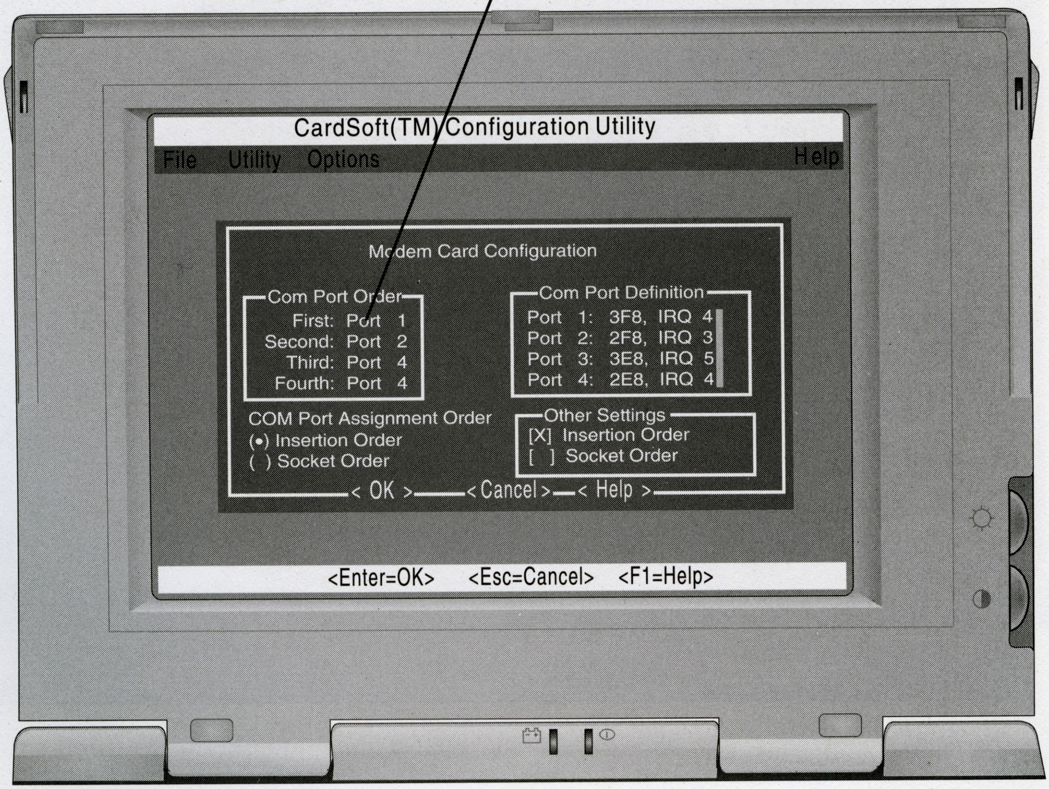
7. When you have finished a screen, press Enter to return to the menu.

Modem card configuration

Note: We recommend COM 3, IRQ 5 for a modem in the first PCMCIA slot.

Since the ColorBook has "only" two PCMCIA slots, only the ports labeled "First" and "Second" apply. (Third and Fourth don't do anything; you can ignore them.) In addition, since the ColorBook already has two serial ports configured in CMOS (COM A and COM B) usually set to COM 1 and COM 2, be sure to set "First" and "Second" different from those ports, for example, as Port 3 and Port 4. Be sure there is a free address and IRQ available for each port you set up. (This is what CSALLOC does when you run it.)

These are the same as COM port numbers



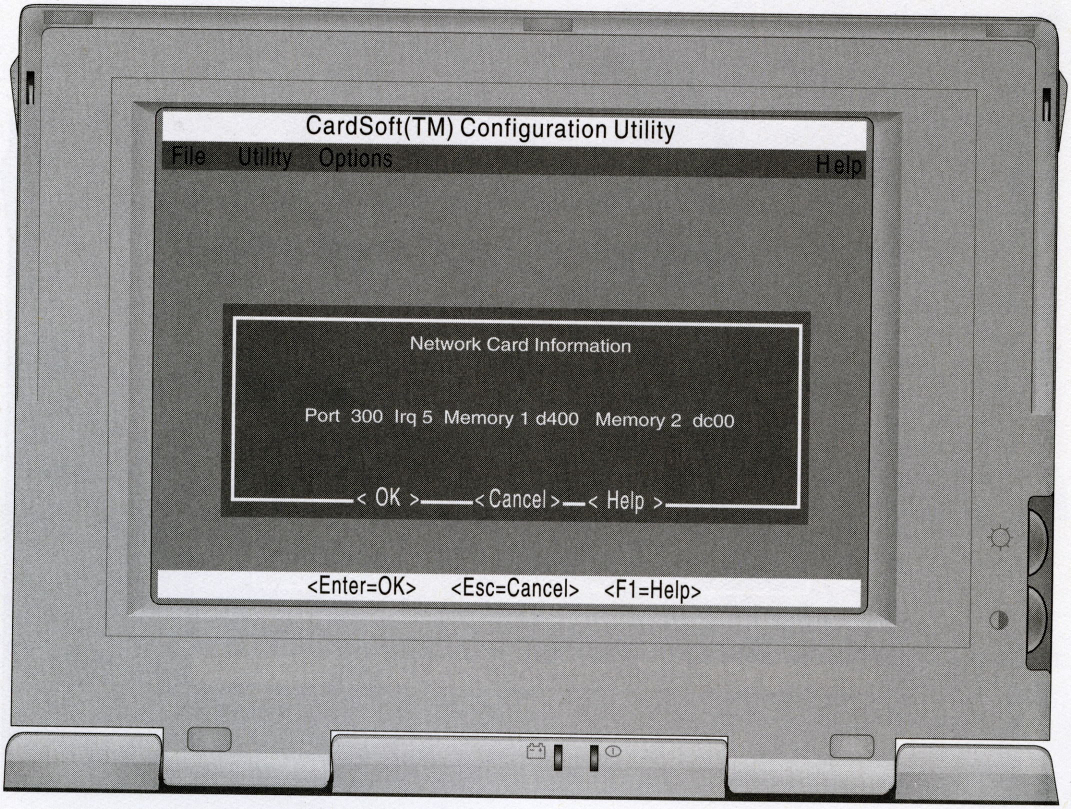
```
Modem Card Configuration

Com Port Order                 Com Port Definition
   First:  Port  1             Port  1:  3F8,  IRQ  4
  Second:  Port  2             Port  2:  2F8,  IRQ  3
   Third:  Port  4             Port  3:  3E8,  IRQ  5
  Fourth:  Port  4             Port  4:  2E8,  IRQ  4

COM Port Assignment Order      Other Settings
(•) Insertion Order            [X]  Insertion Order
( ) Socket Order               [ ]  Socket Order
```

Network card information

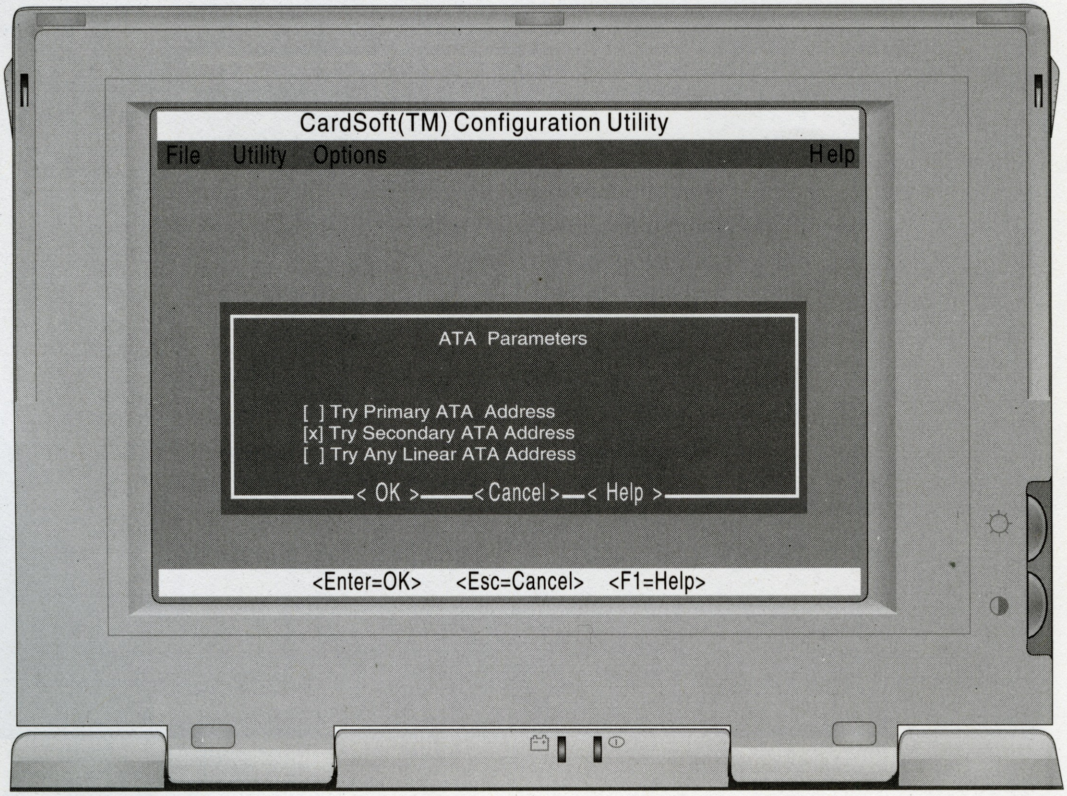
Specify the network card settings to agree with the settings of the card's driver, according to the directions in the card's manual. However, the setup program should make these settings for you. The base I/O address is specified in hexadecimal. (Except for rare cases, the value should be between 100h and 3FFh.) The IRQ, specified in decimal, may be any value between 3 and 15 that is available. (Many network cards use IRQ 5) The memory windows are paragraph values between C000h and EF00h. Since the last two digits must be zero, you need only enter the first two digits.


CardSoft(TM) Configuration Utility
File
Utility
Options
Help
Network Card Information
< OK >
< Cancel >
< Help >
<Enter=OK>
<Esc=Cancel>
<F1=Help>

Port 300 Irq 5 Memory 1 d400 Memory 2 dc00

ATA card configuration

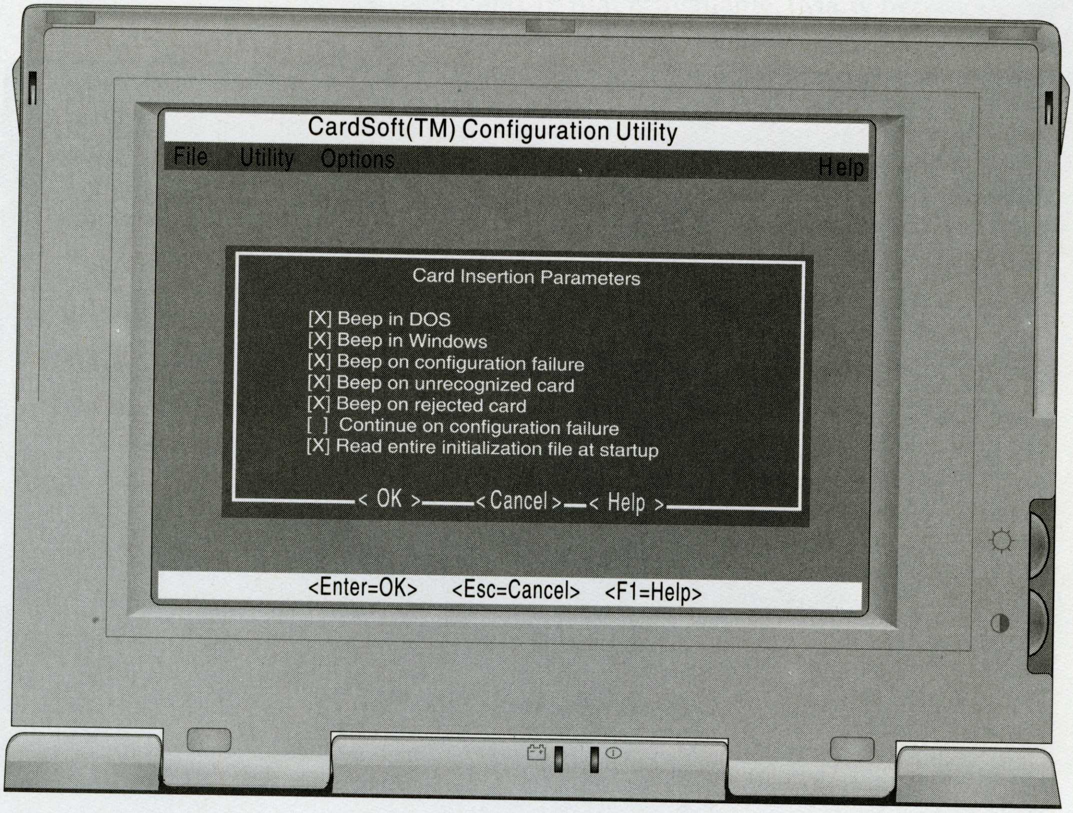
The ATA Card Configuration screen is where you specify how CardID configures ATA cards (including Flash disks and rotating disks). You can specify whether CardID should try the standard primary and secondary ATA addresses, or whether it should try to use the linear-address mode available on most ATA cards. It is generally best to avoid the primary ATA address, which is reserved for the ColorBook's main hard drive.


CardSoft(TM) Configuration Utility
File
Utility
Options
Help
ATA Parameters
< OK >
< Cancel >
< Help >
<Enter=OK>
<Esc=Cancel>
<F1=Help>

[ ] Try Primary ATA Address
[x] Try Secondary ATA Address
[ ] Try Any Linear ATA Address

Card insertion parameters

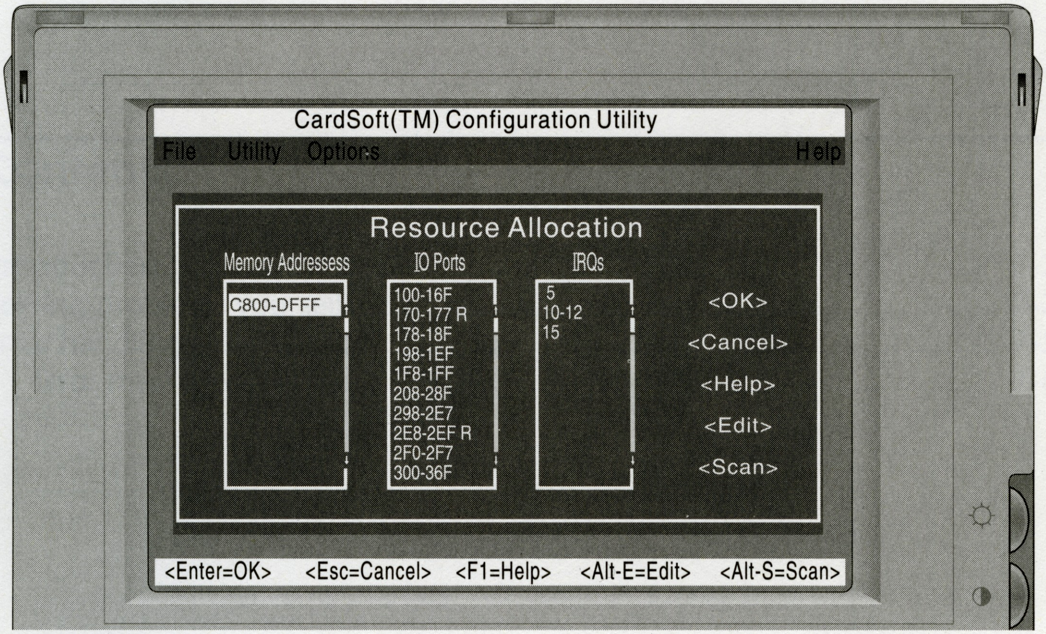
Press the spacebar to select or deselect whichever item is highlighted. The choice Insertion Order means that CARDID configures cards in the order in which they were inserted. The first card you insert gets first pick of the addresses and IRQs. Slot Order means the card in slot 0 (the top slot) gets first configured first.


CardSoft(TM) Configuration Utility
File
Utility
Options
Help
Card Insertion Parameters
< OK >
< Cancel >
< Help >
<Enter=OK>
<Esc=Cancel>
<F1=Help>

[X] Beep in DOS
[X] Beep in Windows
[X] Beep on configuration failure
[X] Beep on unrecognized card
[X] Beep on rejected card
[ ] Continue on configuration failure
[X] Read entire initialization file at startup

Using resource allocation

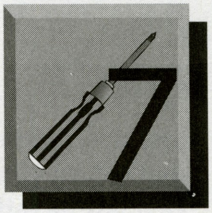
Choose the Utility menu in the Configuration Utility's main screen. Since Resource Allocation is the only item, press Enter to select it. Resources are available memory ranges, addresses, and IRQs. Do not change these settings unless you know what you are doing! The information that appears on the screen is determined by CSALLOC.EXE. If you wish, run CSALLOC with both parameters set (`csalloc /g /d`), jot down the information that appears, and compare it with what appears on this screen.



Memory Addressess	IO Ports	IRQs
C800-DFFF	100-16F	5
	170-177 R	10-12
	178-18F	15
	198-1EF	
	1F8-1FF	
	208-28F	
	298-2E7	
	2E8-2EF R	
	2F0-2F7	
	300-36F	

Device line parameters

You can also modify PCMCIA components by adding or modifying device line parameters to the appropriate device driver within CONFIG.SYS. Follow directions in the manual that comes with a card to make these changes.



7

Troubleshooting

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Introduction

This chapter is designed to help you solve hardware problems you may encounter while using the ColorBook. If you have a problem that's not listed here, please telephone Gateway 2000's technical support department. A special ColorBook tech support phone number is listed in the *Customer Support* booklet that came with the system. (If you call our main number, you may spend extra time on hold.)

Solving problems yourself

Here are common problems and possible solutions.

Computer does not come on when the power switch is pressed.

☐ **Low battery**

Plug in AC adapter and run the unit from AC adapter. After you're finished, switch off the computer and leave it connected to the AC adapter for about two hours to fully charge the battery.

☐ **AC adapter plugged into faulty outlet**

Check AC outlet by plugging in another appliance (a lamp, for example).

☐ **AC adapter plugs not securely connected**

Be sure the AC adapter connectors are fully plugged into the wall outlet, the computer, and the AC adapter itself.

☐ **Battery not securely connected**

Remove the battery and try booting with the AC adapter connected.

☐ **None of the above**

Contact Gateway 2000.

The brightness dial doesn't work.

This is normal. We use a high-efficiency backlight that doesn't dim very much, especially under battery power. However, turning the dial all the way clockwise does give some battery savings.

The built-in LCD screen is blank.

☐ **Screen contrast/brightness controls**

Adjust the contrast and brightness controls on the right side of the LCD screen.

☐ **Computer set up for external monitor only.**

Select the "LCD" or "Both" option in the VGA Display submenu of the Setup program (see Chapter 4, "System Setup," for details). Or press Fn+F1 once or twice.

☐ **Computer in automatic power-saving mode**

Press any key or the power switch to resume.

☐ **None of the above**

Contact Gateway 2000.

☐ **Display unit turned off because of keyboard inactivity**

Press any key to resume. See Chapter 3 for details on the Power Management program.

☐ **In Standby mode**

Press the power switch to continue. See Chapter 3 for details about the Power Management program.

☐ **None of the above**

Contact Gateway 2000.

The external mouse doesn't work

☐ **Incorrect COM port settings**

To use a PS/2 mouse you must disable the micro trackball. This means going into the Setup program (Ctrl+Alt+S), and disabling COM port B. See Chapter 4 for details. If you use a serial mouse, be sure the COM ports are set to different port numbers.

☐ **Mouse not fully connected**

Check the connection on the back of the computer. Make sure the connector is fully seated in the correct port.

☐ **Mouse driver incorrectly loaded**

Check the *MS-DOS User's Guide and Reference* for details on properly loading the mouse driver.

☐ **None of the above**

Contact Gateway 2000.

Power switch doesn't turn off the power.

☐ **Switch is in suspend/resume mode**

You must configure the power switch to On/Off in the Setup program (Ctrl+Alt+S). See Chapter 4 for details.

☐ **The computer is hung**

Press the reset button, in the **round** hole just above the disk status lights.

Error handling

Power-up self-tests are the system tests and component initialization processes performed by the computer's BIOS. The self-tests first initialize and then test the system. If something fails, one of the following occurs:

- ☐ A message with the prefix "WARNING" appears indicating where the error occurred. Following the warning, "Press F1 to continue" is displayed. The system pauses until you press F1.
- ☐ A message with the prefix "FATAL" appears indicating where the error occurred. Following the message, the system emits a series of audible beeps. The system then halts.
- ☐ No message appears, but the system emits a series of audible beeps. The system then halts.

Warning messages are considered "nonfatal" errors, indicating that a problem such as a system configuration error exists. When you press F1, the system should resume execution. Usually you can correct this type of error by changing a system file or the Setup program.

Fatal errors (those that emit a beep and may also display a "FATAL" message) indicate that the BIOS has stopped the system due to a severe problem such as a hardware failure. Fatal errors do not allow the system to resume execution. All fatal errors generate a series of audible beeps whether a message appears or not. These beeps are a series of long and short beeps. If your system emits such a series of beeps, note the number and length (short or long) of the beeps and the message, if any, and contact Gateway 2000.

The following section lists the messages that may appear while booting up the ColorBook. Where applicable, possible solutions are included.

Error messages

You will probably never see any of these error messages.

Message: `CMOS checksum invalid - run SCU`
Description: *CMOS RAM information is corrupted and needs to be reinitialized via the Setup program (Ctrl+Alt+S).*

Message: `CMOS failure - run SCU`
Description: *CMOS RAM lost power and needs to be reinitialized via the Setup program (Ctrl+Alt+S).*

Message: `Floppy controller failed`
Description: *The floppy controller failed to respond to the reset command. Power down the system and check all appropriate connections. If the floppy controller continues to fail, you may need to replace it. Contact Gateway 2000.*

Message: `Floppy disk track 0 failed`
Description: *The floppy drive cannot read track 0 of the floppy disk in the drive. Try another diskette. If the problem persists, you may need to replace the floppy drive. Contact Gateway 2000.*

Message: `Floppy information invalid - run SCU`
Description: *The drive parameters stored in CMOS do not match the floppy drives detected in the system.*

Message: `Hard disk controller error`
Description: *The hard disk controller failed to respond to the reset command. Possible solutions: 1) Check the drive parameters in the Setup program (Ctrl+Alt+S). 2) Power down the system and check all appropriate connections. If the problem persists, you may need to replace the hard disk controller. Contact Gateway 2000.*

Message: `Hardware info does not match video card-run SCU`
Description: *The video adapter type specified in CMOS RAM does not match the installed hardware. Check the video setting in the Setup program (Ctrl+Alt+S). If problem persists, contact Gateway 2000.*

Message: `Keyboard controller failure`
Description: *The keyboard failed the self-test command. Contact Gateway 2000.*

Message: `Keyboard failure`
Description: *The keyboard failed to respond to the RESET ID Command. Contact Gateway 2000.*

Message: `No bootable floppy drive 0 installed`
Description: *No bootable floppy drive was detected. Possible solutions: 1) Power down the system and check all appropriate connections. 2) In configurations where no floppy drive is installed, run the Setup program (Ctrl+Alt+S) and make sure the diskette drive configuration item is set to "None." 3) Replace the diskette drive if necessary. Contact Gateway 2000.*

Message: `RAM parity error at location xxxx`
Description: *A RAM parity error occurred at the specified (hexadecimal) location. Contact Gateway 2000.*

Message: `Time/date corrupt - run SCU`
Description: *The time and date stored in the real time clock have been corrupted, possibly by a power loss. Run the Setup program (Ctrl+Alt+S) and reset the time and date.*

Message: `Unexpected amount of memory - run SCU`
Description: *The amount of memory detected does not match the amount specified in CMOS RAM. Run the Setup program (Ctrl+Alt+S).*

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